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R. R. Murphy reports three swarms on April 23d. Early work for Northern Illinois.

Editor's Table.

It is pleasing to note that the demand for honey is increasing in several new channels. It is being used largely by brewers in making ale, and by tobaccoists in preparing tobacco for the market. Its use for medicinal, culinary and other purposes is also increasing.

In answer to an inquiry, let us say that Cleome, or Rocky Mountain Bee Plant, will grow on any soil, and may be sowed at any time—May being the best time to sow it. It grows 6 to 7 feet high, and blooms from July till frost.

A sample of sugar made from honey is on our desk. As "the result of a first crude effort," it is a success, and shows conclusively that sugar can be made from honey and still preserve its pure and health-giving properties. We shall await the result of future experiments with much interest.

S. S. Weatherby, Balwin City, Kansas, has sent us a few of the blossoms of the Peach. There are from 20 to 30 petals to each blossom. Friend W. remarks:—"The tree in my yard, from which they were plucked, resembles a snow ball, so thick and white are the blossoms." What a rich treat for the bees!

R. Mayerhoeffer, Esq., editor of the *Bienenvater*, Neustadt, Brit Gasse 744, Prague, Austria, desires us to say that he would like to exchange seeds of honey-producing plants for American, or he will sell seeds of European plants, 20 species for 70c. Payment may be made in currency or postage stamps. Here is a good opportunity for a friendly exchange.



Floating Apiary.

Mr. C. O. Perrine has started up the Mississippi River with his Floating Apiary. It contains 1000 colonies, and he intends following the honey bloom up the River, from lower Louisiana to St. Paul, a distance of 2,000 miles, which he expects to reach by the end of July. This he will do by "easy stages," remaining but a day or two at a landing, and move up each time to another landing and a fresh field. He thinks the bees of from 1,000 to 2,000 colonies will take the cream from the country around the landing from 1 to 2 miles distant, in 1 or 2 days. Returning, he will halt about two months somewhere above St. Louis, and will reach Louisiana with his bees in October. It will be his object to take the autumnal flowers at each point in their prime, precisely as he takes the spring flowers in his advance up the river. He expects his early swarms on his boats to increase his colonies to 2,000 in April and May. The following is a description of the whole outfit:

The hives stand in four walls, five hives one above the other, nearly the whole length of the boat, about 250 hives in each line.

The walls of colonies on the right side and left side have openings for the bees to come out on the water-front; a space of two feet between the hives and the guards answers for a gallery for the bee-man to walk on in front of the hives.

In the middle of the boat there are two other walls of colonies, 250 hives in each, facing an inner court six feet in width. The bees from these colonies reach the open air through the sky-light opening in the roof above the court.

Between the first and second rows of hives from the outside there is an aisle three feet in width, for the convenience of handling the hives and the honey.

The distance from the barge deck to the roof over the colonies is fifteen feet. The space below the deck is ten feet in width and about seven feet high, and is to be used for sleeping apartments, making and repairing hives, handling and extracting honey, and putting it in marketable shape. The dining-room and cooking will be on the steamer that tows the bee fleet.

To run the steamer and manage the barges and bees fifteen to twenty hands will be needed. The cost of the whole establishment, barges, bees, steamer, and the complete outfit, will not be much short of fifteen thousand dollars.

☞ We expect an importation of Imported Italian Queens about the middle of May. Those desiring any from that shipment should send at once for them.

☞ By about the 15th of May we expect to be able to fill the many orders we now have waiting for Prof. Cook's new Manual of The Apiary. It has greatly overrun the intended dimensions of the work—making about 50 extra pages. It gives very full and explicit descriptions of the honey-producing Plants, Trees and Shrubs, as well as interesting details concerning the "Care and management of the Apiary," and the Natural History of the Honey Bee. A specimen page will be found in this issue, containing an engraving of the Tulip tree bloom. The illustrations throughout are magnificent, and the work is the best, as well as the cheapest that has ever yet been published on the Apiary. In consequence of the addition of one-fifth to the number of pages in the work, the price will be increased to \$1.00 for it, when bound in paper covers, and \$1.25 when bound in cloth with gilded back.

☞ The Santa Barbara Press has revived the old story of a wonderful cave of honey, in the following language, which is now going the rounds of the Press. It appeared in a late *Prairie Farmer*, without comment, headed "A Monster Bee Hive." Here is the item:

"In the second canyon west of the Mission creek is a huge rock almost perpendicular and standing about 150 feet high. The face is marked with three or four deep crevices, two of which stop at about 100 feet from the base. In these crevices bees have swarmed for years and have their nests. This monster hive was discovered some 19 years ago by some Mexicans and has never been disturbed. It is calculated that the rock must contain several tons of honey, but it is almost impossible to get at it."

What a pity that so many tons of honey should be "un-come-at-able"! It is a very fine story, but one entirely without foundation.

IMPORTED CYPRIANS.—We learn that C. W. & H. K. Blood have sent a messenger to the Island of Cyprus, who understands shipping bees, for the purpose of properly packing and provisioning an importation of small colonies, which they expect to receive at an early day. In order to cover expenses, we are informed that they will have to charge \$30 each for them.

New Arrivals at Our Museum.

LANGSTROTH HIVES.

G. W. Zimmerman, of Napoleon, Ohio, has sent us a lithographic view of his apiary, which now adorns our walls, as requested. He also sent us one of his hives. It is a Langstroth hive, with a few modifications—and, of course, it is a good one.—Nearly every apiarist is adopting the Langstroth hive now—sometimes varying the dimensions, or some other unimportant feature. Friend Zimmerman gives us this description:

"I have made and used these hives since 1868. What I claim as my improvements, are the frame, 10x14 inches; the hard strip of wood, upon which the frames hang, and the ventilator in the rear end of the hive, which slides on dowell pins. The lower story takes 10 frames; the upper, 11 frames, or sectional boxes. These I claim to be my improvements, unless it can be shown that they were used prior to the above date.—(The sectional frame or boxes were $4\frac{1}{2}$ x5 inches). I have tried many movable frame hives, during the 24 years that I have used these, but find that this one gives me better satisfaction than any other. I have had over 2500 of these hives manufactured here; there are now over 3000 hives here, containing these frames."

It is questionable whether friend Z's modifications are improvements. We certainly prefer the standard Langstroth hive, without them. Of course, other good apiarists may not—among them friend Z. We add it to our Museum with pleasure.

R. R. Murphy has also sent us a Langstroth hive with his modifications, a 6 lb. honey box, and case to hold Prize Boxes for it, with tin separators. It is a regular two-story L. hive—only it has two-inch ends for the brood chamber. This adds a trifle to the cost, and it is questionable whether it is of sufficient value to pay for it. The 6 lb. box is one of the "long, long ago" kind—good, but out of date now. The case and Prize Boxes are to be used on a honey board—as nearly all now dispense with the honey board, cases to be hung by a projecting top bar will be generally preferred.

THE MODEST HIVE.

J. Oatman & Sons have sent us the Modest hive. It contains 11 frames, (top bars not beveled), size, 11x12 outside; two cases, each containing 4 Prize Boxes; and a Comb Honey rack, holding 21 Prize Boxes, with tin Separators. The cap is made of $\frac{5}{8}$ stuff, and is roof-shaped. Being *modest*, we prefer the Langstroth, though the former is a good and simple hive.

THE EVERETT HONEY EXTRACTOR.

This is a Novice Extractor improved, and has been endorsed by the Michigan and Ohio State Conventions—the only places where it has been exhibited. It gives valuable room, like the Muth Extractor, for considerable honey below the comb basket,



and has an attachment for holding pieces of broken comb while extracting the honey, which hangs near the top of the comb basket, avoiding the disagreeable necessity of reaching down to the bottom to put in or remove them. It will take frames 12x20 inches or smaller. It is advertised in this issue, and may be had at this office.

THE THOMSON HONEY EXTRACTOR.

This consists of material (iron and wood) all fitted, to be put into a barrel, to extract the honey, and is all that the small price, \$2.50, would lead one to expect. It is a bent rod, with handle and iron fittings, and the material for a comb holder. Any mechanic can easily put it together and fix it into a barrel. It is the *cheapest* thing in the extractor line, and leaves no excuse of any one not having an extractor, even if he has but one colony. It can be made for any frame—the size of the barrel being the only restraint. For sale at this office.

OLDT'S HIVING APPARATUS.

Another improvement and another model has arrived. This is intended to be used where queens' wings are not clipped. It has to be very nearly balanced when the hive is on, and after a few bees have swarmed out, it tips to the front, and the entrance is closed. The only available space for the bees is an enclosure covered with wire cloth. Into this they rush, and as they cannot get away, after becoming composed, it is intended that they shall

enter the empty hive from the wire cage and go to work. Another feature is that it may be so arranged as to give alarm when the bees swarm by ringing a bell attached to the apparatus when it tips forward.

WHITE'S NEW HONEY EXTRACTOR.

Here are two new machines—the latest being the "Eureka." The revolving cylinder and comb holder, as seen between the two cuts, revolve within a well-made, hard wood tank. In the "Superior," the upper cylinder revolves, leaving the lower one stationary. Both have faucets and a capacity for



holding 150 lbs. of honey below the revolving cylinder; this runs through a strainer into it, and is, therefore, free from dead bees, dirt, &c., and is ready to bottle direct from the faucet. Both have tight covers, protecting from flies, bees, &c. They will take any frame not larger than 12x18 inches, and are very durable. For sale at this office.

THOMSON'S INTER-CHANGEABLE HIVE.

Wm. Thomson, Detroit, Mich, has sent us this hive, which he claims "is the best and cheapest two-story hive ever invented." It consists of 4 pieces of pine, 13½ inches wide, and each cut to about 15 inches long, rabbeted inside on top, to receive top bars 1½ inches, and rabbeted outside 1 inch at bottom. The upper story fitting closely into the rabbet of the lower, but leaving room for the top bars of the frames. The frames are 13 inches square and fit either way of the hive, that being square also.

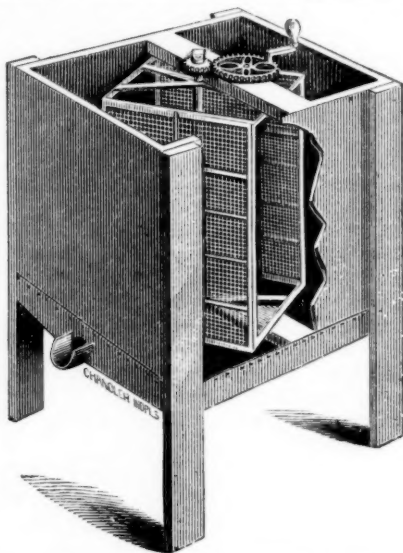
This hive, friend Thomson thinks, "merits the \$25 offered by Novice, in *Gleanings* for February." Novice differs with Mr. Thomson in his opinion, and as he guarded his offer by adding that the desired device must be one that he will adopt, he alone is the judge of "the fitness of things"—and that ends it. "And now

comes" Novice, with "malice a forethought," and publishes Mr. Thomson as "a humbug and swindler." Though, if we were called upon to judge in the matter, we should not see our way clear to award the \$25 to the "Inter-changeable" hive; still, we deem Novice's action extremely reprehensible. The hive is very simple, and, in a measure, answers the requirements Novice stated. Mr. T. thought the hive merited Novice's offered premium, and so stated—is he, therefore, a swindler? In the name of reason, tell us why?

Novice also condemns the *AMERICAN BEE JOURNAL* for publishing Mr. T's advertisement of this hive—again exhibiting his jealousy and quarrelsomeness. Truly, Satan was editor-in-chief of *Gleanings* for May.

M'DOUGALL'S HONEY EXTRACTOR.

This extractor is gotten up with special reference to cheapness, and is intended for those who cannot afford one higher in price. It will take frames of any size, and



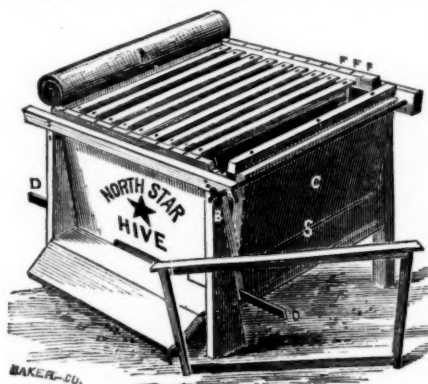
as the inside parts are strongly made, it will answer the purpose as well as any. It has no cover or faucet, and the frame, though strongly made, is plain—the finish being where the expense has been saved.—It is a good machine for such a low price.—The revolving can may be easily removed and the whole readily cleaned. It takes any frame 13x18 or smaller. For sale at this office.

TRANSPORTATION CAN.

This is manufactured by J. H. Coleman, of New York, and is an excellent idea for a square can, holding from 1 to 10 gallons of extracted honey, enclosed in a box, so constructed that by lifting the cover the can may be placed in an elevated swinging position, and operated for pouring off the honey from the top so easily that a child could manage it.

THE NORTH STAR HIVE.

Sperry & Chandler have in this something of value. It is also a modification of the Langstroth hive, having many points of excellence. Its arrangement for the produc-



tion of comb honey is, we think, unexcelled. Its peculiarities are a manipulating side (C) opening at the top about 2 inches; rod (B) with thumb-screw to hold the sides together; shape and size of frame, 10x16½ inches, tapering 2 inches; tipping front; easy means of controlling the entrance (D); the quilt to cover frames attached to the side, and its comb honey rack. We have some of them in use and like them exceedingly.

THE DUNHAM BEE FEEDER.

This Feeder is made of tin, the length of a Langstroth frame, 5 inches deep and 1¾ inches in width. It is perforated at the bottom to let the food down, atmospheric pressure preventing its escape faster than it is taken by the bees. It hangs by projecting ends, like the top bar of a frame, and holds several pounds of the food, or it will work just as well when it contains a single pound. For feeding *inside* the hive, it is a good arrangement—though the idea of a feeder the size of a frame is old—still, Mrs. Dunham is entitled to credit for bringing it out with the present combination of parts. It can be

made to fit any hive. The feeder may be removed as soon as the necessity for feeding is past, so that none is wasted, and as it is air tight, the food does not sour. It can be introduced as easily as a frame of capped honey, which has heretofore been considered the best method of spring feeding, thus avoiding the necessity of keeping such frames full of honey for that purpose. The food may be placed into the hive warm if desired. By request, we shall keep them on sale at our office. They can be sold for 75 cents each. Though feeders will not be used much this season, the time may come when they will be more urgently demanded.

HOGES'S NEW HONEY CARRIER.

This is now made with spiral springs instead of rubber balls, and in it honey can be transported safely any distance.

BEE BRUSH.

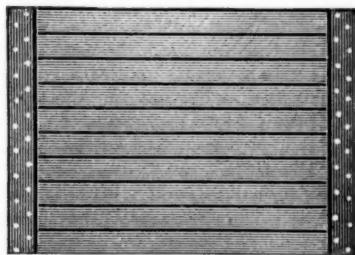
Geo. B. Wallace has sent us from San Bernardino, California, a brush made of the outside coating of soap plant, for brushing off the bees from the comb. He says: "by dipping it in water occasionally it will remove young Italians with despatch." It is placed on our museum shelves.

CARLIN'S FOUNDATION CUTTER.

This is an admirable little tool for cutting comb foundation. The wheel is made of



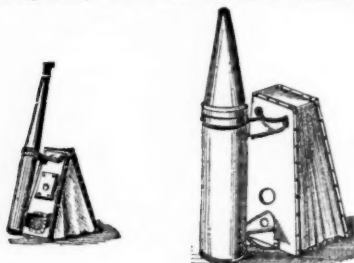
tin, sharpened. It is made by Novice, who has also constructed a frame for guaging the width of starters, to be cut evenly by it to any desired width. It is made of strips of wood of the desired width for starters,



these being nailed together at the ends by a strip, and left sufficiently wide apart to let the Cutter work between them. These are both very desirable devices.

THE NEW QUINBY SMOKER.

Friend L. C. Root has forwarded us his new Smoker. Cuts of the old and the new, side by side, will show the radical changes



THE OLD.

THE NEW.

that have been made. The bellows is shorter and wider, and has but $1\frac{3}{4}$ inches play—the old one having double that amount, making it difficult to operate. The tube is 2 inches in diameter, and is fastened to the bellows at both ends by cast iron holders. It is strong and durable—a vast improvement, in every way, over the old Quinby Smoker.

One of the questions discussed at the Congress of French Workmen, recently held at Lyons, related to the means of widening the field of female labor. Among the avocations for which women are particularly adapted, bee culture was favorably spoken of.

Novice is bilious, ill-natured, fretful and peevish—he sees everything through jealous eyes; and, sure enough, the world is wrong side up! In consequence, Satan has full possession of his sanctum—"type writer" and all! That "new light," which so lately illumined the place, has been extinguished by the arch-fiend, and in the "darkness and gloom," Novice is *furious!* Under dire hallucinations, and with a suddenness that is surprising, the *two* controlling the sanctum have declared war upon the AMERICAN BEE JOURNAL, and simultaneously have commenced hostilities!

The AMERICAN BEE JOURNAL, with "charity for all and malice towards none," extends its sympathy to the poor "fallen brother," and offers its strong hand to again lift him out of the grasp of Diabolus,—out of the mire, and gloom and darkness—into that "new light," which strengthens and cheers those under its influence!

The AMERICAN BEE JOURNAL takes up

the "text prayer" of *Gleanings* for February—and asks the Father to "create" in him a "clean heart," and "renew a right spirit within" him—enabling him to say to the other occupant of his sanctum—"Get thee behind me, Satan!"

The National Convention for 1878.

The proceedings of the next National Convention will be made interesting by many important articles, among which will be the following:

- Who will be our future honey producers?—By James Heddon.
- Honey Plants of America.—By Prof. A. J. Cook.
- Details of the Apiary.—By L. C. Root.
- Honey as an Article of Food.—By T. G. Newman.
- Rise and Progress of Bee Culture.—By A. J. King.
- Should Inventors be Encouraged by Beekeepers?—By C. R. Isham.
- The Commercial Importance of Beeswax.—By Theo. Leonard.
- Artificial Comb Foundation.—By N. N. Betsinger.
- Fertilization in Confinement.—By Prof. Jared Hasbrouck.
- Particulars Concerning Our Honey Markets.—By C. F. Muth.

Also interesting articles upon statistical information, regarding the production of Honey, by:

- Prescott H. Woodford, of Hartford, Ct.
- Wm. W. Cary, of Mass.
- Geo. W. Rosenberger, of Va.
- Rev. M. Mahin, of Ind.
- Dr. J. P. H. Brown, of Ga.
- J. M. Shuck, of Iowa.
- Herbert A. Burch, of Mich.

In fact, the most elaborate arrangements have been undertaken to secure reliable statistics for publication.

Besides this, many interesting tests will be made in various apiaries this season, and reported at the meeting.

Friend H. W. Conklin has sent us a small part of a frame, showing how he fastens in the comb foundation. A place for the foundation is sawed, as represented by the parallel lines, thus: "′, the acute mark representing another saw cut by its side, and small brads are driven into the latter saw cut, and through the foundation—thus holding it, not only by the nails, but also by the pressure of the wood between the nails and it. It is simple, and very readily done by those having a circular saw; and about holding it in strongly, there can be no question.

Sending Queens by Mail—Progress.

Early in January we got up a Petition to Congress, and sent it to prominent bee-keepers in the different States, for the purpose of procuring signatures. By the first of March, having several thousands of names attached to the Petition, we sent copies to the Congressmen of several districts, requesting them to present the Petitions to Congress, and use their influence to secure the passage of a Law granting the prayer of the Petitioners. The following is a copy of the Petition :

To the Senate and house of Representatives of the United States of America in Congress assembled:

THE UNDERSIGNED, citizens of the U. S., and residing in the State of..... would respectfully petition your Honorable Body to amend the Postal Laws, wherein they prohibit the transmission through the mails of "live animals" thereby forbidding the sending of Bees by mail, greatly to the inconvenience of your petitioners. Your petitioners hereby submit the following reasons for such amendment.

1. It is essential to the well-being and prosperity of colonies of Bees, that apiarists often exchange Queens, in order to prevent "in and in breeding," and obviate the consequent deterioration of stock, as well as to infuse new life into the apiary. Heretofore your petitioners have accomplished this by enclosing a Queen with a few Bees as "attendants upon her Royal Majesty" in a small wooden box, with one side covered with wire cloth strongly tacked to the box, and sending this neat and safe package by mail to brother apiarists in different States or Territories, as the occasion or fancy may require, without the least detriment to the mail bags, or inconvenience or injury to the person or any one connected with the mail service.

2. This reciprocal exchange of Queen Bees was inadvertently interfered with by the passage of a late Act of Congress, forbidding the transmission of "live animals" through the mails. It is reasonable to infer that at that time no one thought that this Law would at all interfere with the transmission of these useful "insects" through the mails, when so harmlessly encased. Indeed, such transmission was *not* interfered with for a considerable time after the passage of the Law in question; and until a recent *Ruling* of the Postmaster General, the law prohibiting live *animals* from being sent in the mails was held as not applying to *insects*, and the mails were freely used by Bee-Keepers for sending Bees from one apiary to another.

3. The Bee-Keeping interests of the United States are large and they are yearly increasing and the recent *Ruling* of the Post Office Department is a great detriment to your petitioners and encroaches upon their rights and privileges as citizens of this great Republic.

Your petitioners therefore pray for a modification of the Postal Laws of the United

States, so as to allow of the transmission through the mails of living Bees, when thus properly encased and protected.

And your petitioners will ever pray, &c.

The following letter from Hon. Geo. B. Loring, one of the members of Congress, to whom we sent the petitions, shows that we have accomplished something:—

HOUSE OF REPRESENTATIVES.

Washington, D. C., April 21, 1878.

MY DEAR SIR:—I have held a consultation with the P. O. Department, and find that in their view, House Bill, No. 3850, as now reported, is sufficiently liberal in its provisions to admit of discretion on the part of the P. M. General, in reference to the carriage in the mails, *when properly put up*, of matter now excluded. This will afford the relief you desire, I doubt not.

Truly yours, &c. GEO. B. LORING.

We hope our next issue will bear the news that the bill has been passed and that the P. M. General will revoke his order, and allow the free use of the mails for sending bees, as heretofore.

At all events it is pleasant to be able to report *progress*.

Marketing Honey.

This department will be devoted to items of interest concerning Packing, Selling and Shipping Honey and Beeswax.

The Honey Market.

This has been one of the most remarkable years the commercial world has ever experienced. Men, whose business sagacity has earned for them fortunes, and reputations for sound, penetrating judgement, have failed in their calculations for the past 10 months. We know of a merchant who purchased honey at a price he considered an extraordinary bargain, and basing his calculations upon the ruling prices of former years and the demands of his own trade, he was justified in his deductions.—But the general deterioration of all values shrank honey also, and his speculation turned out to be but another illustration of the truthfulness of what Robbie Burns tells us: "The best laid schemes o' mice and men gang aft a-gley."

Very little honey now remains on the New York Market. We are informed that the Thurbers have unloaded their large stock, having less than 100 cases left, which, considering their extensive trade, is simply less than a two week's supply!—Prices on "gilt edged," white honey, like



that of Doolittle's and Ellwood's A brand, were maintained at 25 cents throughout the entire season. As well as one or two other producers, their cups of honey were sent to market in the neatest possible form, and they were well paid for the trouble! Not only did they have a care for neatness, but while packing the honey into crates, they avoided with scrupulous care anything that looked like deception; or, in other words, the "veneering" game, that so many practiced to their cost. In showing honey to grocers who buy single crates, they now, almost invariably, have the crate opened and examine every box, and if any are found off color, or in any way irregular in style or quality, the entire crate is rejected and has to be sold at a reduced price. It will be a great deal better for producers to cull the honey and grade it as it should be. We know how prone human nature is to ut the best foot forward, but it will not drop in cases of this kind.

Extracted honey, we are pleased to note, is just now attracting considerable attention, from the new interest invested in it by the recent satisfactory efforts of certain gentlemen to convert it into sugar, suitable for domestic and manufacturing purposes. We are free to hazard the opinion that if the production of extracted honey can be so much facilitated and cheapened as to make its cost approximate that of raw sugar, it will then be but a question of time, when refineries will spring up all over the country, for its conversion into sugar; until then, producers must content themselves with a fitful and uncertain market. An important question is about to arise, and that is, "Can honey be profitably produced, so as to compete with raw sugar?" If this be determined in the affirmative, then all fears of an "over production" will be forever dispelled.

Let us have a full and exhaustive discussion of the matter. It will have to be disposed of sometime; and we might as well face the music now.

GOLDEN ROD HONEY.—It will be interesting to friend Palmer and others, who produce this kind of honey, to know that one European establishment, after receiving a sample shipment of Golden Rod Honey, sent an order to New York for that kind of honey; at the same time intimating that the trade in it was likely to be large.

THE FEAST OF THE PASSOVER.—This is the season our Jewish citizens celebrate the Feast of the Passover, one of their important religious ceremonies, on which occasion it is their custom to eat honey. They are very particular regarding its purity, and indifferent as to price. They are instructed by their Rabbies to buy only candied honey, as it is more likely to be pure than it is when liquid. The grocery-men buy it in barrels, and sell it out to peddlers, who in turn, pack it in new, clean, and bright packages. One singular thing about this trade is that they will accept only such honey as candies with a "grainy" appearance, rejecting as impure, and as they say, "mixed with flour," all other kinds. The magnitude of this line of consumption is not appreciated by most dealers. We have known a firm, this year, to clean the market of this particular kind of honey, accumulating upwards of 200 barrels and firkins, and unload the whole of it in a single week in April.


CALIFORNIA HONEY.—Commission men and producers in California have, we understand, perfected arrangements for consignments of large lots of honey to Chicago, St. Louis, Philadelphia, Pittsburgh, Cincinnati and Boston. They are afraid to try the New York market, we understand, because they fear the competition with Eastern honey will be so great. They consider New York the point to which the most of the honey produced in the East will be shipped. The Californians have taken a "new departure" in the way of surplus boxes. We saw some very neat Prize Boxes and Crates from there, last winter. Our Eastern friends will certainly have to look to their laurels. Comb honey must be put upon the market in attractive one-comb boxes, to find ready sale.

Every one who has traveled in Switzerland will recollect how plenty honey is throughout that country. At the hotels it is supplied *ad libitum* without extra charge as a part of the "plain breakfast," of rolls and coffee. In most parts of this country, on the other hand, it has been a comparatively costly luxury; but now there is reason to hope that it will soon be as abundant as in Switzerland. With the modern appliances discovered to direct these busy workers for man's benefit, beekeeping is destined to develop a source of untold wealth to the country.—*Exch.*

SHIPPING AND MARKETING HONEY.—Packages should have gross and net weight *neatly* marked upon the cover or head.—The address of the firm to which the honey is shipped should be so marked on the cover or head, as to generally take up as little room as possible. Commission houses will generally forward a stencil-plate for this purpose, when requested to do so.—The initials of the party shipping, or his shipping mark, should be on the package as well. Of course, where large lots are shipped, simpler marks can be used, by an arrangement between the parties. Neatness in marking is *very* important. The shipper should strive to have his honey strike the eye of the buyer favorably at first sight. Receipts should always be taken from the express or transportation companies, and full advices, with a correct invoice of the shipment, should, without delay, be forwarded by mail. When forwarded by express, it is best to put a letter of advice in one of the packages, and mark plainly "bill," advising by mail. There is nothing so vexatious or intolerable to a commission house as the receipt of consignments not properly or distinctly marked and advised. Every producer who designs to make a market for his honey and obtain good prices, should have a brand or mark of his own. By doing so, he may establish a reputation for his goods which will be valuable to him; buyers will look for his particular brand.

THE BOSTON HONEY MARKET.—There is quite a large stock of white clover and basswood honey remaining on hand unsold there. Dealers paid a high price for it, early in the season, last fall, and are not disposed to sell at a loss now; therefore, they expect to hold it over until next season. They do not seem to push it with the vigor they should, either. A friend of ours called upon a commission merchant, the other day, who, he knew, ought to have some nice honey; and, after looking around and failing to discover the article anywhere in sight, asked whether he had any honey for sale. He replied, "Yes, we have a lot up in the loft, it is a good deal of trouble to get it down, but if you want to buy, we will show it to you." He assured him that if he was not too much attached to it, and the price and quality suited, he would buy, and finally did negotiate the sale. The Geer brothers complain of slow sales, and say that they expect to draw off all their wagons

the 1st of May. Cuba honey is offered and sold there at 80c. per gallon; it weighs about 11 lbs. to the gallon; even at this low price, the only buyers are New Yorkers.

 J. H. Martin, of Hartford, N. Y., has sent us some of the little boxes in which he has been putting up his candied honey, as spoken of on page 107 of the April number. His boxes are round, and look like large pill boxes, and hold 2 oz., $\frac{1}{4}$ lb. and $\frac{1}{8}$ lb. each respectively. They are neat and nice, and as they take well with the children—why is this not a good scheme? It comes very near to the "penny package" idea—and it is healthy for the children and profitable for the producer.

Our Letter Box.

Winterset, Iowa, April 15, 1878.

"In the winter of 1876-7 I had 10 colonies in the cellar and left 44 out without protection, and in June following I had only 3 left. I increased and purchased to 32; sold 22 of them and expect to increase to 50 this season, besides getting about 500 lbs. of honey."

M. BAILEY.

St. Clair Co., Ill., April 13, 1878.

"I would like to ask C. Eggleston if the season had not more to do with his success than the kind of hive he uses? My bees brought flour from a mill (60 rods distant.) before Christmas, and kept at it till others brought in natural pollen. I had brood hatching on Feb. 1. I have 23 colonies in Adair hives. Novice has not changed as much as Mitchell. The latter's changes have been many. In 1870 he had the Buckeye, with hinged frames opening like a book; in 1872 he had the 'Rough and Ready' hive, lined with paper, frames 11x12, tight-fitting at sides. With this he was going to 'beat the world.' Now he has the adjustable hive, with frames $12\frac{1}{2} \times 10\frac{1}{2}$ deep. This makes 3 different hives in 8 years. In transferring, it makes no difference which way combs are put into the frames, as I have proved. I made the discovery in this way—one very warm day in September, 1875, I was extracting honey from the brood-chambers of several Adair hives and cracked several combs at the top, so that they would not bear their weight right side up, so I turned them top side down, intending to turn them as soon as the bees got them mended, but I missed one and left it in the hive till I was overhauling it the next spring, when I found it all nicely fixed up, straight and smooth, with more brood in it than in any other section in the chamber. I have since put combs in frames just as they fit best, and never have had any cut out yet, which Mitchell says they will do, in his 'First Lessons in Bee Culture.'"

C. T. SMITH.

New London, Minn., April 21, 1878.

"Bees commenced to gather pollen and some honey about the 1st of April, and also to rear some brood. They now have whole combs filled with pollen, and the queens are laying profusely. Every one of the 60 colonies are doing well. They are all in the North Star Hive. One that had been a choice queen for 2 years now proves to be only a drone layer. Apples and plums are just commencing to bloom."

O. W. PARKER.

Jesuit's Bend, La., April 14, 1878.

"I use in my father's apiary, a bee smoker consisting of a roll of bagging about the size of the wrist and a foot and a half long, sewed up together. I make it of old oat and bran sacks—one cut in half will make two. By lighting the end of one of these you have a splendid smoker which never goes out and is very handy."

GEO. E. R. FOX.

West Chester, Pa., April 12, 1878.

"Bees are swarming in this vicinity from the Centennial hive. A neighbor had a fine swarm thrown off, on the 2nd of April, and another on the 3rd. Then there was very little honey to be gathered. Now we have abundance of blossom,—the peach, plum and cherry; also Norway maples are giving considerable honey."

E. PENN WORRALL.

Malden, Ill.

"I have handled bees more or less for the past 58 years. Formerly, we got them to do all we could, and then brimstoned them.—Last spring I had but 6 colonies, increased to 20 last fall, in fair condition for winter, besides having obtained over 300 lbs. of honey. After willows and maples bloomed, gooseberries came, giving considerable honey; then dandelions, apples and raspberries. In June white clover was good; the drouth came in the first week in July, lasting a month, during which the bees gathered no more than they consumed.—The bees visited buckwheat till about 9 A. M., then some went for the lady's-finger and heart's-ease till about 3 P. M. They were busy on melilot clover from morning till night, preferring it to the golden rod.—Buckwheat is good for honey. During the drouth bees visited catnip. I have learned more from the AMERICAN BEE JOURNAL as to how to handle bees than from all other sources, and wish it every success."

R. CORBETT.

Otter Tail Co., Minn., April 15, 1878.

"Having had considerable experience with foul brood several years ago, I can say, with much confidence, that there is no danger in using hives which have contained foul brood if proper care is used in cleansing them. The process is simply to scrape the hives and frames and then scald them thoroughly with boiling water. I have removed bees and purified the hives in this way, and returned the bees to the hives the same day, repeatedly, without any recurrence of foul brood. The combs cannot be preserved without taking more time and labor than they are worth. But they need

not be wholly destroyed. After cutting out and burning the parts containing the dead brood, the remaining portions of the combs may be melted into wax and the honey which they contained boiled and skimmed, and then used in any way which the owner desires, without danger."

D. BURBANK.

Appleton, Wis., April 21, 1878.

"FRIEND NEWMAN: I have been appointed by the Commissioners of the National Bee-keepers' Association to make a statistical account and report of honey and wax production of our State for the year 1877. My advantages for gathering such information is so limited that I think best to secure the help of the JOURNAL, requesting all who have information in their county, in this State, to send it to me before July 20th, giving names of bee-keepers and county, and the amount of honey and beeswax."

A. H. HART.

[This table will be of value, and our friends in Wisconsin should respond promptly to friend Hart's request. It will be benefiting themselves in the end.—ED.]

Limerick, Ill., April 18, 1878.

"I saw on page 76, of the March No., that A. C. Balch had a swarm cluster out of reach and remained there till next morning. A friend of mine, when bees settle out of reach, takes a looking-glass and throws the bright rays of the sun on the lower edge of the cluster and gradually move it down; the bees come down too. I never tried it."

E. PICKUP.

Flatbush, L. I., April 20, 1878.

"DEAR EDITOR: Will you allow me, in your valuable JOURNAL, to correct the report of my paper read before the Nat'l B. K. Association, in a part at which a gentleman feels aggrieved(?) I commended a bee-feeder, consisting of a small trough, without float, under the top-bar of a comb frame, but I said the device was patented. This statement was omitted in the report which, in its present form, the patentee thinks, does him injustice, and is calculated to mislead the public. I stated, however, that I believed the patent was not valid, as the same thing, in a slightly modified form, had been used by others for a long time, and, particularly, as I was informed by what I considered good authority, by the manufacturers of the State of Maine Bee-Hive. Will some of your readers, who know about that hive, tell us whether my information was correct, or who the proprietors or patentees of that hive were?"

JARED HASBROUCK.

Modesto, Cal., April 7, 1878.

"Bees are doing well. I expect to have sections filled in a day or two. I have mammoth stocks with a short shallow frame, 8x13½, and hive 2 feet long. I take away all the empty space in the brood apartment that the queen does not occupy. I put my sections close up to the brood nest. When the bees are gathering freely, I lift them out partly filled and put them into the upper story."

J. F. FLORY.

Carson City, March 10, 1878.

"The season is 6 weeks earlier than any has been for 7 years. Bees are in good condition. They carried in pollen on the 7th inst. I use a frame 10x10 inches, and think it the best for this climate."

HIRAM ROOP.

Crystal Springs, Miss., March 9, 1878.

"I had in winter quarters 35 colonies. I have only lost 1; my bees are now raising brood rapidly, and gathering some honey.—I commenced with 13 colonies last year, reached 41, sold 6, and secured about 600 lbs. of honey. Bingham's smoker is a success."

J. W. MCNEIL.

Lynnville, Iowa, March 18, 1878.

"Our 164 colonies, put up the last of Nov., came out the first of March with a loss of 2 per cent. 151 are in fine condition; as strong, if not stronger, than they were last June. With our bees in this condition, we feel confident that we shall reap a good harvest."

C. F. DILLEY.

St. Mary's, Ind., March 6, 1878.

"The AMERICAN BEE JOURNAL comes loaded with good things. Can't see how it is possible to make it so much better every month. It is always a welcome visitor.—My 10 colonies have wintered splendidly on their summer stands. Our winter has been the warmest ever known here."

THOS. J. WARD.

Platteville, Wis., March 11, 1878.

"My bees brought in pollen on the 7th inst., a month earlier than last year. My 68 colonies in the house apiary are in good condition. I have 32 more, 5 miles from the house apiary. My bees are all black. I have tried Italians 3 times and my faith in them is weak. In 1871, 58 colonies of Italians and blacks dwindled to 14 blacks; from these I have raised my present 100 colonies."

E. FRANCE.

Murfreesboro, Tenn.

LARVA EATING:—"In the March number, page 87 of the AMERICAN BEE JOURNAL, A. E. Manum, of Bristol, Vt., states that bees use their larva in making royal jelly—food for queen larva. Will Mr. Manum please inform your readers how he ascertained this fact? Did he make repeated experiments, so as to leave no doubt, or does he suppose, reckon, or guess they do?"

W. P. HENDERSON.

Columbia, Tenn., March 15, 1878.

"We are now having beautiful weather. The peach trees are in bloom. The grass, the buds and the blossoms are coming rapidly, and the bees are having a good time; they are much excited and very busy. Out of 23 colonies I have lost 3—starved to death—through culpable neglect; and, if I were speaking of somebody else, I might say *criminal neglect*. The survivors are doing finely—raising young bees—some already hatched. The winter has been remarkably mild here, and the present indications are flattering for a good honey crop."

W. S. RAINEY.

Des Moines, Iowa, March 6, 1878.

"The double-walled hive with me, thus far, is a success. My bees came through the winter with nice, dry combs, free from mould, and are now increasing fast with brood."

WM. CLEMENT.

Dakota Co, Minn., March 11, 1878.

"From 10 colonies, last spring I got 600 lbs. of extracted, 600 lbs. of comb honey in section boxes, and increased to 18. I put them into the cellar Dec. 1, and they are all strong now."

E. W. FELTON.

Birmingham, O., March, 7, 1878.

"Bees are doing well, bringing in pollen from the elm. On Feb. 22, I found all but 1 colony in good condition, and in chaff hives found 3 frames with about 10 square inches of brood each."

C. A. GRAVES.

Fairfield, Wis., March 16, 1878.

"We took out our bees about the 1st of March. On the 6th and 7th they brought in pollen; almost a month earlier than usual. Bees have wintered well here."

WALLACE PORTER.

Nevada City, Cal., March 11, 1878.

"I saw a question in the JOURNAL enquiring whether bees would gnaw linen or cotton when placed over the frames. I have been feeding with sugar syrup, poured upon linen and placed over the frames, with the cover over that. The bees did not gnaw it at all."

R. E. BUSH.

Jones Co., Iowa, March 6, 1878.

"This has been a warm winter. I put 68 colonies in the cellar, Nov. 24. As it was so warm, I took them out several times, and lost none. All are on their summer stands now in good condition. I consider the JOURNAL the best bee publication—having read them all."

J. E. HUNTER.

Keokuk Co., Iowa, March 8, 1878.

"Took 109 colonies out of the cellar today in good condition. Have kept bees 7 years and never had them winter so well before. I winter in a well-ventilated cellar, and never lost but 3 swarms. One queenless, and 2 late swarms starved. Your 'typo' made our report nearly 2000 lbs. of honey, instead of 4000 lbs."

S. L. & M. VAIL.

Cedar Rapids, Iowa, March 11, 1878.

"I have 33 colonies of bees; lost none in wintering; they are in splendid condition; all have brood and bees hatching. Bees have been gathering pollen quite rapidly the last few days. I wintered in the cellar. I have a foot-power saw for making hives and fixtures, and would say to any person keeping bees that they cannot afford to do without one. I agree with Mr. Palmer on the raspberry question, and think that bee-keeping and small fruit business should go together. I have $2\frac{1}{4}$ acres of raspberries; they are always alive with bees, while in blossom. My honey took the two first premiums at the State fair last fall. Success to the AMERICAN BEE JOURNAL."

THOS. B. QUINLAN.



Shawano, Wis., March 16, 1878.

"I have 23 colonies in Langstroth hives, (8 frames,) made of straw, by myself. I have wintered out doors for 2 years without loss."

H. KLOSTERMAN.

Garden Plain, Ill., March 12, 1878.

"My bees are out of house and are all alive and breeding rapidly—most of them have young bees, hatching—fully as fast as some years in May. If the season is favorable for the secretion of honey, I expect a large yield from my 100 colonies."

R. R. MURPHY.

Waveland, Ind., March 16, 1878.

"I placed in the cellar last fall 44 colonies, and took out 40 this spring. Four lost their queens after being put out. I set them out the first week in March. Most of them had brood. Bees gather natural pollen every pleasant day, and, of course, pay little attention to flour feed. The prospect is good for all kinds of fruit, and an early honey season."

ISAAC SHARP.

Perry Co., Mo., Jan. 21, 1878.

"I commenced with 1 colony, in box hive, in 1863; I got a colony of Italians in a Langstroth hive in 1869, and subscribed for the AMERICAN BEE JOURNAL. Some of my neighbors, who keep a few bees in box hives, made fun of me at first, and predicted a failure—but now they don't seem so 'funny.' Last year was a good season for bees, while the two years previous were the worst I ever knew."

M. H. MILSTER.

White Co., Ark., March 4, 1878.

"I commenced last spring with 2 colonies; these produced 85 lbs. of nice, white, comb honey each, which I sold at 18 cts. per lb. I paid \$10 each for them. They were in movable, comb hives, but were black bees. In July I bought an Italian queen.—I introduced her into a hive; it was my first attempt at Italianizing. In September last, to my great joy, I found that I had a full colony of Italians. I bought, in June, 14 colonies of bees in common hives, and transferred them to movable-comb hives.—The 13 colonies are strong, and have plenty of honey. I saved, while transferring, about 100 lbs. of nice honey, which I have had for table use."

D. I. BEECHER.

Brecksville, O., March 18, 1878.

"Bees came through in splendid order—no loss whatever. Thanks to instructions in the old and reliable AMERICAN BEE JOURNAL. I put 25 colonies in the cellar, leaving the balance on summer stands, packed in chaff. After a careful examination of bees and stores, I am satisfied that those in the cellar wintered with the smallest loss of bees, and consumed from $\frac{1}{4}$ to $\frac{1}{2}$ less honey, notwithstanding the winter has been one of extraordinary mildness. No further argument is needed, in my case, to show the economy of wintering in cellars, if proper conditions are observed. Very few losses in wintering have been reported in this vicinity, and unless the season should prove a very poor one, it is safe to predict a large yield from Northern Ohio the coming season."

CHAS. S. BURR.

Ridgeley, Mo., Feb. 22, 1878.

"My bees have wintered well—using but little honey. They are strong in numbers. I wintered on summer stands, packed in boxes, with hay."

JOHN SCHEERER.

Milan, Ill., March 30, 1878.

"I have been 12 years in the bee business. Commenced with 1 swarm, and now have 112. Don't know anything yet about bees, but expect to learn something from each copy of the JOURNAL. My bees are in fine condition, and the prospects are first rate."

C. H. DIBBERN.

Milledgeville, Ill., March 27, 1878.

"The Barnes' saw arrived on Saturday, in good condition. It is a good saw. My bees are now on their summer stands.—They are in excellent condition. Did not lose a colony in wintering. I have received one of Novice's smokers. It is much inferior to Bingham's. The latter is the cheapest, and far more convenient."

F. A. SNELL.

Riverton, Iowa, Feb. 8, 1878.

"Our great drawback, in the bee business, is that we have no bloom that affords honey in June. A great many bees, kept upon the old principle, died last June of starvation. I had 42 colonies; they cost me \$1 per day for food. Our fall flow of honey was good. During the season of 1877 we had but little increase, but plenty of honey. About 10 tons in this county. I tried 3 dollar queens last season, and they were as good as any warranted ones I ever had, and I have paid as high as \$8 for a queen."

ED. WELLINGTON.

Clarks, O., March 8, 1878.

"Bees have been gathering pollen and honey since March 1st. They are in good condition and breeding finely. Of 23 colonies, I have lost none; winter on summer stands. Some boys stole 3 frames, a few days ago, from a colony, taking about 15 lbs. of honey, the queen and about one half of the bees. I united what was left with another colony. I am using the adjustable bee-hive, and like it. We get our honey in section frames, and use the extractor. I shall try fertilization of queens in confinement, by a method I have long had in contemplation; will let you know how I succeed. Success to the AMERICAN BEE JOURNAL."

J. A. BUCKLEW.

Marathon, N. Y., March 18, 1878.

"I like the AMERICAN BEE JOURNAL very much, and the better I become acquainted with its management, the more I prize it. Last Nov., I put 40 swarms of black bees in a house with a wall 8 inches thick, filled with sawdust on all sides, top and bottom; lined the walls with building paper on the inside, gave ventilation at top, and in center, at the bottom. Owing to the mild winter, it was hard to keep the temperature low enough to keep them quiet. I placed them on their summer stands the last of December for a flight, (the weather being warm); put them back dry and nice, where they remained until March. They are strong in numbers, and combs are

bright, excepting a few. The weather continued warm, and in their eagerness to commence their season's work, they gave me trouble by robbing; and then there would be sneak-thieves, of my own or my neighbors, that would commence to fly about a strong swarm, and in a short time they would alight upon and enter in force. After protecting that one, they would go to the next one, but by close watching I managed to keep even with them until the weather cooled down. I have lost 2 out of the 40 colonies, owing to mismanagement last fall; they went into winter quarters with poor queens, or none at all. Please answer through your columns the following questions: 1. Will bees cluster and commence work in section boxes as readily, and with as good results where the division tins are used as they will when they are not? 2. Are section boxes with glass on either side preferred to them without glass, in the market? 3. Is tobacco smoke injurious to bees if used moderately while handling them?"

OSCAR COURTNEY.

[1. Yes; just as readily.

2. They were last year — what may be demanded this year, is not yet determined. The Prize boxes may be glassed or not, as the market may demand, before shipping.

3. No; if used in moderation. Rag or punk smoke is better.—ED.]

East Pharsalia, N. Y., March 14, 1878.

"I started last spring with 3 swarms; increased, by artificial swarming, to 9, and took about 75 lbs. of comb honey. I have now 9 strong colonies. Bees are busy at work on the sugar maple, where the farmers have tapped the trees. I use the Langstroth hive, and winter out of doors; made boxes 6 inches larger than the hives, every way, and packed space with chaff; they came out clean and bright this spring.—Have taken the chaff out, but will leave the hives in the boxes until about May 15. We have strong winds here through April and the first of May, and the boxes will keep the wind from blowing heat away from the hives. I intend to buy 5 more colonies, and then increase to 50. I experimented last year on comb foundation, and it was a perfect success; the bees accepted it, and drew out the cells quickly."

FRANK ROBINSON.

Oneida, Ill., Feb. 20, 1878.

"I believe I have made a valuable discovery; and that is to use wire cloth instead of canvas to pack absorbent around the frames in the hive; chaff, dry leaves, or saw-dust, may be used. Make a box 3 inches larger one way than the hive inside, and 2 frames high. To use the Langstroth frames, the hive should be 18½ inches by 21½, and 22 inches high. Make a frame of (common plastering lath) thin stuff, 1½ inches, to go into the hive; lath should be edgewise, with lath posts, about 6 inches apart; nail or tack the wire cloth on the inside of the frame, and pack the absorbent between the hive and the wire cloth. By this plan, the chaff is next to the bees. The chaff cover, made of wire cloth, will rest on the comb

frames and be 3 or 4 inches thick. For hot weather, take out the absorbent, and the hive will be thoroughly ventilated. Take out the inside frame, and put the comb frames cross-wise and the hive will hold 8 more frames. We want more room in summer than winter; let the side of the comb frame run down ¾, to rest on the bottom, and the top frame rest on the under one. I have kept bees 10 years; have set one hive over the other with comb frames, in the past 7 or 8 years, and like the plan first-rate."

A. REYNOLDS.

Mount Pleasant, Iowa, March 13, 1878.

"Bees have wintered well. I have wintered 55 colonies on their summer stands, with the loss of but 1, which was queenless. My largest yield of extracted honey, last season, from 1 colony, was 394 lbs., in a double-story, Quinby hive. Please answer the following questions in the next JOURNAL: 1. In using close-fitting, section frames, how can you tell when the inner frames are filled and ready to take off, without tearing them all up? 2. What holds the sections in place while on the hive? 3. Are the outside sections to be glassed? 4.—I intend using sections with close-fitting ends and ¼ inch top bar, covering the same with cloth; so by folding back the cloth, you can see down through, to know when they are filled. Is the idea a good one?"

JOHN A. THOMAS.

[1. You can tell only upon examination, but that can be easily done without damage.

2, and 3. Answers to these will be found on page 156.

4. If you don't intend to glass them, your plan will do.—ED.]

Harrisville, Pa., March 16, 1878.

1. Is it best to hang the Prize Boxes in a case, or glass each outside one and fill the hive? 2. Are wooden separators as good as tin? They would be cheaper. 3. Is ¼ inch enough space for bees, as that appears to be all the room there is, with the separators?"

JACOB PATTERSON.

[1. Either plan is good. See description in full on page 156.

2. Wooden separators have been tried, and abandoned by many. Bees will fasten comb to them, sometimes, and the capping will then be broken when removed.

3. The ¼ inch space between two boxes is supplemented by the thickness of the tin, giving them space enough to pass.—ED.]

Kewaskum, Wis., Feb. 12, 1878.

"The past season was a good one in this section. I had 20 colonies that made 4,300 lbs., (an average of 225 lbs. to the hive). I have sold all at from 10 to 12 cts. My neighbor, Mr. G. Kuck, had 2 colonies of Italians; one was so weak last spring that not more than a pint of bees was left; I took them in hand, and through May they increased very fast, and on the 1st of June one gave a large swarm. When the other



swarmed I gave them an Italian queen, which was accepted, and in 10 days it gave another large swarm; the combs being well filled with brood. From the 2 colonies I made 11, and introduced Italian queens, which I sold him for \$2 each. The account stands thus: Eleven swarms, at \$5 each, and 550 lbs. of honey, sold at 10 cts. per lb.—Total, \$110. The expenditures are: Eleven queens, at \$2, and 11 hives, at \$1.50 each, amounting to \$38.50; leaving a net profit of \$77.50." WM. HOLLOM.

Hillsboro, Ill., March 20, 1878.

"Bees are out of winter quarters in good condition, with a shrinkage of not over 3 lbs. since the first of December."

I. H. SHIMER.

Mishicott, Wis., April 5, 1878.

"I put my bees out March 20th. Wintered them in the cellar; lost 2 colonies, and found a few queenless. The rest of them are in good condition. We expect a good harvest."

FRED CLAUSSEN.

Garafraxa, Ont., March 11, 1878.

"My report for the last 2 years would be: In 1876, I put 18 colonies into a dark, but not dry cellar. Thermometer stood 40 to 42°; after 5 months' confinement, set out 16. In 1877, put 30 colonies into same cellar, on Nov. 7, and set out 30 on March 10. Thermometer at 42°, during all that time. Entrances open $\frac{1}{2}$ inch and new sheets of duck over the frames. Water stood in the cellar during both winters. I have noticed that those colonies having the least pollen, had least moldy combs. Please get your readers to give more definite reports of their modes of wintering."

J. C. THOM, M. D.

[Yes; it would be more useful and satisfactory, if all would give the manner of their preparation for winter.—Ed.]

Smithsburg, Ind., Feb. 15, 1878.

"I wish some expert in bee-culture would explain why a queen, reared in Italy, will produce more eggs than one reared in America, and why they are better honey gatherers than the American bees, and why the dark bees reared in Italy will gather more honey than the yellow ones? And also why we never could get yellow queens from Italy before last season? Some say that their imported queens are very large and yellow, and also their workers; even more yellow than our home-bred Italian bees. I would like to see some of these beautiful, imported bees. I have had some imported queens that cost me almost \$16 each. They were small and dark, as was also their progeny; and some of the queens were impure. If the yellow, imported queens are not the best, why does one of our dealers ask one dollar more for them?—He seems to think we should be satisfied with imported bees, whether pure or not.—I, for one, am not satisfied with any impure bees; I would not have them in my apiary. I have queens that will produce workers with the 3 yellow bands solid, with no black between them. These I call pure Italians."

D. A. PIKE.

Pontiac, Ill., March 20, 1878.

"The AMERICAN BEE JOURNAL has saved me, in clear money, \$56.25 in the matter of hives alone, in two years, to say nothing of all the other information I have gained, which cannot be shown so readily by figures. Those who do not take the JOURNAL stand in their own light."

R. MATTHEWS.

"Albion, Iowa, March 14, 1878.

"My bees have wintered splendidly.—They became so restless that I had to remove them from their winter quarters on Feb. 11; found 1 dead—queenless. I made little increase in stock last year, but got a very satisfactory yield of honey. Being very busy with other business, last year, I concluded to let them attend to the swarming business themselves. This year, I propose to run the swarming business myself. Last spring, they came out of winter quarters with a fair supply of drones. As it is their custom to kill off their drones in the fall, why did they deviate from the general rule in this case? I see some writers on honey-producing plants class thoroughwort, or boneset as one of them. I have plenty of it, but have never seen a bee on it yet.—Are they not mistaken in confounding it with motherwort, which is a honey-producing plant? It is a prevalent theory among apiarists, that it takes about 20 lbs. of honey to make one lb. of comb; and therefore, that a colony of bees will make that many more pounds of honey in the same time, if they have the comb furnished them. In the first place, I would ask some one to explain to me by what experiment that fact (if it is one) has been ascertained? I have seen 2 colonies, of apparently equal strength, side by side, the one having a top box, of 15 lbs. capacity, filled with empty comb, of last year's building; the other, with an empty one, throwing off a swarm; said swarm filling a 15 lb. box, while the other had made no visible progress towards filling their empty comb. Why is this?—Or why, as a general rule, will a young, natural swarm fill its hive at the same time of making its comb, and make as much surplus honey in the season as the parent hive?"

J. C. ARMSTRONG.

[Will some one who has experimented as to the cost, in honey, of comb-building, give the desired information.—Ed.]

Forestville, N. Y., March 11, 1878.

"As I am thinking of building a winter repository for bees, I would like a little information concerning the construction of the same. Which is best, a cave, or a house above ground, with walls of 8 or 10 inches of saw-dust, and a 4 inch dead-air space?—Would it be best to plaster it? Is a gravel floor better than concrete? Please answer through the JOURNAL?"

I went into winter quarters with 12 colonies in Quinby hives; had them out for a fly, on March 8, 9, 10. One is dead, the rest are in good condition. I wintered in my cellar, which is too damp for successful wintering.

I see you go for the crystal honey business. A friend of mine obtained a recipe of

one of J. H. Reeves, 78 Nassau St., N. Y., to make the celebrated crystal honey, paying \$5 for it, which he (Reeves) claimed would make an article as much superior to bee honey as bee honey is superior to New Orleans molasses. My friend made some of it, and was badly humbugged. Could send you the recipe, if I thought it would be interesting." H. D. G.

[Either a cave or a house will usually winter safely, if properly prepared. A house, such as you mention, will do if the temperature be kept from 3 to 10 degrees above freezing point, and it is perfectly dark and well ventilated. These points are more important than plaster, concrete or gravel. A cave should be beneath the surface, in sandy, or well ventilated soil; straw should be packed below and around the hives; the entrance open, but secured against mice. A mound of earth should be over them, to secure equal temperature.—Ed.]

St. Charles, Mo., April 12, 1878.
"I have 100 Italian colonies in good condition. Never in 10 years have had such a favorable spring. Bee-keepers ought to be happy." A. S. WILLIAMS.

Vermont, Ill., April 11, 1878.
"My bees are now doing better than they did a month later last year. Drones are flying, and a small amount of honey is being gathered; brood in all stages of development. Could not do without the JOURNAL." HARDIN HAINES.

"I enclose some blossoms of a tree that the bees work on from morning till night.—Please give its name." D. A. PIKE.

[It is the staminate flower, of one of the willow family. Locality, time of bloom, and more of the plant than one simple blossom should be sent. We need to know the habit of the tree, and to see the leaves.—A. J. COOK.]

Smith's Grove, Ky., April 16, 1878.
"My bees are in good condition. I did not feed any this spring, and never had better success in springing my bees. They are now preparing to swarm. I am raising queens, and the white clover is just beginning to blossom. We are a month ahead of time. The weather is balmy, and our prospect is good for a rich honey harvest, though we may have a freeze yet. In Italianizing, we sometimes find it very troublesome to find the black queen, especially if the bees are strong. I have succeeded in Italianizing a few such colonies in this way:—I put a queen cell in the honey box, on the top of the hives, and it was a complete success. The young queen, being the most active, was victorious in the contest. The cell must be put in the honey box, where the old queen does not go, or she might destroy it." N. P. ALLEN.

McKinney, Texas, March 1, 1878.

"In the last January number, of the AMERICAN BEE JOURNAL, page 10, you answer a question, put by F. R. Davis, and the first sentence goes beyond the 'old school,' and, by implication, indorses the doctrine of Mr. Martin Metcalf, as set forth in your very excellent JOURNAL, Nov. No., 1877, page 381. Did you intend to go so far? I have no doubt of the correctness of the doctrine of Mr. Metcalf, notwithstanding the learning of the great bee-men and the books. Please speak out, right in the meeting." W. H. ANDREWS.

[Certainly. Friend Davis had a swarm with an Italian queen, and hybrid bees, settle in his bee yard. The bees that this queen produced were all beautiful Italians. He asked: "Were they pure, when the queen came with a hybrid swarm?" We remarked: "If the queen was pure and purely mated, her progeny is pure, no matter in what company she may be. Most likely she had been recently introduced to the colony and led off the swarm." We see no reason for changing that opinion.—Being pure and purely mated, her progeny must be pure. Decidedly so.—Ed.]

Rockton, Ill., April 2, 1878.
"I put in my bee house 41 colonies, last fall, and took out 41 colonies this spring, in good shape, dry and nice, with lots of brood." H. W. CONKLIN.

Dunn Co., Wis., April 13, 1878.
"I have quite an amount of empty comb; how can I keep it from the moths?" J. STODDARD.

[Examine frequently, and if any traces of moth are discovered, fumigate them with a little sulphur.—Ed.]

Burlington, Kansas, April 5, 1878.
"I have wintered 13 colonies, 9 of them I transferred from box hives, during the winter, with success. All are now in fine condition. Gathered first pollen, Feb. 5, and to-day, I have drones flying, hives full of honey from fruit and red bud bloom, which is now making the little fellows happy, judging from the music among the flowers. Some colonies have commenced queen cells already, and they have not been pushed any either; neither are we away down south, only on the 38th parallel. Our prospect for a rich harvest is promising." J. W. HENDERSON.

Winnesheik Co., Iowa, April 9, 1878.
"I put 43 colonies in the cellar, about December 1st, and took them all out February 1st; all but 3 were in good condition; these were weak last fall, and I did not expect to save them. Two were robbed when I was away from home, the other is doing well. There was but very little loss of bees. I winter in the cellar." O. E. COOLEY.



Constantine, Jan. 15, 1878.

"1. What are we to do, that have invested in patent hives? How can we dispose of our colonies of bees. I suppose we can sell hives and bees, but has the purchaser a right to use them? I refer to Mitchell's adjustable hive. He claims a patent March 9, 1875, for 17 years. I think it an excellent hive, but do not want to increase in a hive that I cannot dispose of. The patent seems to be the division boards, by which the space can be diminished or increased at pleasure. I see Mr. Doolittle is using something similar, and others, claiming that it was not patented. I wish to be on the safe side—therefore the inquiry.

2. Why could not a plain home-made sheet of wax be used for foundation combs? If the bees have the material, will they not construct them as well as when they furnish the material themselves? I mean to try it in the spring. A NEW SUBSCRIBER.

[1. Mr. Mitchell says he waives all right in such a case of purchase. His patent is *not* on a division board—but the use of it with "lugs" and rubber strips. Any one can use a division board; the "lugs" and rubber strips are non-essentials, and are useless in any other hive. The hive proper and frames are not patentable, and it is not likely that the purchaser would be disturbed. If you like that hive, there is no reason why you should not use it—but we think the Langstroth would please you better, and would be more desirable in the sale of colonies.

2. Bees will supply the wax, or will generally use such as may be supplied, whether the base of cells be impressed or not.—Ed.]

Lansing, Mich., April 15, 1878.

"I have unpacked my bees, and found all alive and in a very healthy condition; there being brood in every card, except the two end ones. Drones are hatching very rapidly. My bees were wintered out of doors. Inside boxes so as to fit over the hives, allowing a foot between the boxes and hives; from the entrance I had a passage-way, so that bees could go out at any time. The space between the hive and box was filled with straw; this had a roof, so as to keep out water and snow. I think this the safest way to winter on summer stands. It is the same as Prof. Cook recommends in his new book."

FISK BANGS.

Nahua, Iowa., April 13, 1878.

"Bees wintered well; I wintered in the cellar and did not lose a colony. The prospect is fine for a good season. I bought my queens last year of J. Oatman & Co., and they were very prolific—keeping their hives full of bees and brood. I have kept bees for 9 years, but the Oatman stock bear off the palm for being quiet, peaceable and good to handle. I shall re-queen 50 colonies this season, and want no other kind. I shall raise all my queens from the Oatman stocks."

E. J. SCOFIELD.

Southern Notes,

GLEANED BY

W. J. ANDREWS, - COLUMBIA, TENN.

KIND FRIENDS:—With this number we withdraw from the management of this department. Our love for the busy little insect and their managers is as strong as ever. We love to handle bees, and converse with those who handle them. To us, it has always been a pleasure to receive and answer letters pertaining to their management. We never engaged in the business with a view of any gain, but solely for a pastime and the pleasure it afforded us. To handle bees successfully, especially for profit, requires strict attention; as much so as any other business. My business has assumed a shape that it will require the whole of my time—undivided with any other occupation. I have, therefore, arranged with a friend to take charge of all my hives, and I withdraw from the business in toto.

With many thanks for numerous acts of kindness and wishes of good feeling I have met with at your hands, and with kind wishes to all, I am

Yours truly,

WM. J. ANDREWS.

For the American Bee Journal.

Honey Dew.

Some contend that it is evaporated from flowers, and falls on the leaves of trees, as other dew; others are of the opinion that it is wholly the product of aphides; and others, still, think it is the product of exudation through the pores of the leaves of certain trees.—That it is caused by evaporation from flowers is at variance with reason, since saccharine matter never exists in a volatile state, and cannot be taken up in the air by the process of evaporation.—This is fully demonstrated in the art of sugar and syrup making. Then we must look for its cause either as the product of excretion from aphides or exudation from the leaves of trees, or from both causes. We assume that it is from both, but mainly as the product of exudation.

That from exudation, which is always during dry, warm weather, is doubtless caused by an effort of nature to perform her proper functions, which have been partially suspended by exterior causes.

This is forcibly exemplified in the foliage of certain trees, such as peach and plum, which have been injured by late frosts, the result of which is an exudation of saccharine matter much sought for by the bees. It is an effort similar to that brought into action by pomologists to force fruit trees into bearing, &c.

But while we are satisfied that honey dew, with us, is mainly the product of

exudation, still we have evidence that it is not always so.

Aside from the aphides, so often spoken of, and so minutely described by naturalists, we occasionally find, in this part of our great domain, masses of small semi-globular, animated beings, (don't know what to call them,) which appear to be almost destitute of both life and motion. They are found on the twigs and small limbs of young poplar trees. Beneath them, when numerous, the leaves, branches, weeds, and even dry leaves are literally covered with honey dew, and bees visit such places in great numbers. That this is the product of exudation is out of the question, from several considerations.

1. The honey dew is never above, but always beneath them. 2. These beings could not be attracted there, since they are apparently destitute of the means of locomotion. 3. If, in this, it was caused by exudation, all poplar trees would be effected at the same time and in the same manner.— 4. The whole of the same tree is not always thus effected.

From these considerations, it is apparent that the so-called honey dew is the result of both vegetable and animal agencies.

TENNESSEAN.

For the American Bee Journal.

Moon-beams from Georgia.

IMPROVEMENT IN BEES.

The proceedings of the North-Western Ohio Convention, on page 48, Feb. No., should be read with interest, by all breeders of the pure Italian bee.

The resolution offered by Mr. Williams, discouraging the traffic of cheap untested queens, and urging the purchase of only pure, choice queens, was one that will meet the views of all intelligent "breeders." The intelligence manifested by members of that convention, in sustaining Mr. Williams' resolution unanimously, speak volumes to their praise. They have a higher aim than filling the country with an impure stock. If the same spirit was manifested by other bee conventions, we might hope for greater improvement in the Italian honey bee.

The resolution adopted by that Convention shall be practiced by all sustaining the purchase of nothing but pure tested queens; then, and not till then, can we hope for much improvement in Italian bees.

BEES, HERE AND THERE.

Reports from nearly all parts, show that bees are in a fine condition.

R. Davenport, of Richland Springs, San Saba Co., Texas, writes that he has transferred 62 colonies of bees, this winter, from log gums to frame hives, and he has over 100 more to transfer.— He took from 10 log gums 1000 lbs. of honey; that he has been a bee scholar 20 years; and that San Saba county is the best for bees and honey of any he ever saw.

APICULTURAL PROGRESS.

American apicultural progress ranks among the marvels of the age. The great growth of this enterprise has not only been a theme of earnest inquiry, but one of speculation. Even amid conflicting views and opposition, the progress of apiculture has moved steadily and nobly onward, until we might say, in fact, that it possesses a national "life;" progress is the life and theme of Americans.

HOW TO MANAGE A HIVE CONTAINING FERTILE WORKERS.

First, give them 1 or 2 frames of brood from some strong colony, place the queenless colony on the stand, where one of the strongest colonies stood; placing the strong one where the queenless one stood. The queenless colony will receive large numbers of bees, that, finding no mother in the hive, will soon regulate matters, and have queens in progress at once. This plan seldom fails to get rid of a fertile worker, and the new queen will reign supremely.

Colonies having no queen should receive a frame of sealed brood, occasionally; this will keep them strong until a fertile queen can be given them.

ITALIAN BEES.

No other part of the world has made greater advances in the production of honey than America. This leads to the belief that this enterprise is fast approaching perfection. It is with no slight feeling of pride that we make these observations.

For years public attention has been directed to the introduction and improvement of the Italian bee. Importation after importation has been made, no doubt, with a view to improvement. The question is now asked, how far, or to what extent, if any, these efforts have been successful? Have we, by careful and judicious selection of this bee, increased their qualities, viz. size, prolificness, industry, temperament, color, ability to defend and lay up large stores of honey, &c. The question is, have these qualities been improved since their first introduction into this country? If we



were permitted to judge, we should say that we have failed to see the improvement made, by many American breeders, that should have been made.—They are as much susceptible to improvement as any other stock; and had they received the necessary care to develop and bring those qualities out, it would be apparent now. But we cannot expect it under the present system of management. While so many are engaged in breeding, and sending all over the country, hundreds and thousands of untested queens, just so long, we shall see improvement in the Italian honey bee retarded; it cannot be otherwise. Hundreds of these queens are impurely mated, and many of them are sent into places where the Italian bee is bred in its purity. It will be necessary, in order to continue, to breed them pure, to get rid of these impure bees.—This costs time, and is very much to the injury of those breeding genuine stock.

This system will, no doubt, continue until people appreciate the value of pure stock.

Rome, Ga.

A. F. MOON.

Swarming and Surplus Queens.

MY MANAGEMENT FOR SWARMING.

I am professionally a telegraph operator, and keep bees for both amusement and profit. My business keeps me away from my pets during the day, and I have been somewhat concerned as to what plan I shall pursue during the coming swarming season, and have decided upon the following:

1. I shall have 2 or 3 very light, portable hives, made to contain 6 Gallup frames, so arranged that they will not shift about while carrying the hive from one place to another. I shall have a large opening, covered with cloth, in the bottom of each, to allow plenty of ventilation.

2. I will have all my empty hives properly arranged where they are to remain.

3. I will have every queen with one wing clipped.

Now for the mode of operating:—Whenever a swarm shall issue, I will have my wife to catch the queen and cage her, which she can do very well.—Then cover old hive with a cloth, so as to hide it from the returning bees.—Then place the portable hive in front of the old stand, and as soon as the bees commence to return, release the queen in front of the hive. As soon as all are in, she will remove the portable hive, and place it upon the alighting

board of one of the new stands, and remove the cloth from the old hive.—Thus they will remain until I return home in the evening; and then, I will remove the frames and bees to the larger hive, where they are to remain, and make everything snug.

HOW TO KEEP SURPLUS QUEENS.

I have a frame, made very much like the one described by Mr. Davis, (page 134, vol. xiii, A. B. J.,) but differs in some respects. The frame is divided into sections; one side is covered with wire cloth, the other has small doors, made of perforated tin. In each section have a shield, made by bending a strip of tin about 1½ in. wide, and 4 in. long into the shape of U. In this I put a piece of comb, containing honey. I fasten the tin in with a tack.

In this frame of cages I keep all rejected queens, and I think it will answer very well for surplus queens. I place the frame with the queens in a strong colony, and there they will live all summer. In winter they are apt to chill to death. I have no doubt that this plan of keeping queens can be made very useful to some bee-keepers.

S. C. DODGE.

Chattanooga, Tenn., March 19, 1878.

Sumter Co., Ala., Feb. 22, 1878.

"1. Bees are bringing in pollen and honey. If too bountifully supplied, shall I use the extractor for the brood chamber at swarming time? 2. How can I keep the queen out of the surplus department? 3. If a comb is full of honey, and only partly capped, would it be safe to extract without waiting for it to be finished? 4. How shall I unite 2 colonies? 5. If a hive has a tendency to send out more than 1 or 2 swarms, will cutting out the queen cells stop them? 6. Do you think it advisable to heat honey before sending it to market, to prevent it turning to sugar? 7. Can you tell me what smoker will remain lighted, after laying it down, to use again in a few minutes? Unless I keep mine continually working, it will go out immediately."

SUBSCRIBER.

[1. Extract whenever it is necessary to give the queen room. 2. If the surplus department is above, the queen will not generally trouble it. 3. Yes; though it would be better if capped. 4. Remove the poorest queen, smoke the bees thoroughly, sprinkle with sweetened and scented water. If in box hive, shake the bees on to a sheet and hive them together. If in movable frames, select the frames having brood and the most honey, omitting others. 5. Yes.—6. If crystalizing threatens, yes. If not, no. 7. Bingham's will do it.—ED.]

Correspondence.

For the American Bee Journal. Chips from Sweet Home.

On page 88 of the *AMERICAN BEE JOURNAL*, James Heddon seems to be afraid of *over-stocking* our bee pastures with bees.—One year ago to day I would have said amen to his two columns, but last season's experience has changed my amen to, that—I started out with 150 hives, located on less than $\frac{1}{4}$ acre; increased to 200,—think I held the increase down too close, however.—These 150 hives averaged me a little over 100 lbs. each. This spring, I shall start out with about 270 hives, to be increased to 400, all in one apiary, and shall get in honey—well—we will tell you better next fall, and as F. I. Sage says, on page 75, we will get it by *plenty of hard work*, which is *not* suitable for invalids, &c. “Palmer, how much help do you have?” I will tell you what I have to do this season: Commence with 250 hives, 4 acres of small fruit, 4 acres of garden truck, 3 horses, 5 cows, 4 calves, hogs and poultry; this will be our work to accomplish. I hire one hand. If I could get one trusty, competent person, (such are scarce for bee business), I would start another apiary next season. James, “with-a-head-on,” as O. Clute says, we must work bee business as we do fruit. If we could get a very early, or a very late berry, do you think we could glut the market with that? O! no; says you, because we would have the market to ourselves. Very good; a *few* bee-keepers will keep up to the times, put up honey to suit the demand, and get the highest price; and the many, with box-hives, inch-board boxes of honey, will not be able to compete with the few; consequently, the many will not be among the *few* that will supply our large market with honey.

We, at one time, advocated early breeding by stimulating, but we now think, for our location, it is better to not use any artificial stimulation, either by feeding or separating the brood part and inserting empty comb. Such may pay to keep invalids busy on a few hives, but does not us. None need such but poor, weak hives, and these do not pay us to fuss with, as we have plenty of others that will pay. We will try over-stocking, by running 400 hives in one apiary.

There is a lack of honey-producing flowers between apple bloom and white clover for 10 or 12 days. Where wild raspberries are not abundant, it will pay to cultivate some of the best improved kinds for honey and fruit, as they bloom at this interval, filling up this vacancy. The honey is abundant and of the best quality; bees may not store any in boxes, but it keeps up the breeding, so that when white clover blooms they are strong in bees and brood, ready to store the finest of honey in the surplus boxes. Of all persons who should cultivate fruit for profit, it is the bee-keeper, for he has both fruit and honey; the latter giving him some profit more than his neighbor,

who does not keep bees. With care, they can be increased quite rapidly. The first Sweet Home I raised in 1873; in 1874, I raised 22 plants, and fruited the finest Black Caps that I ever saw; in 1875, I raised 50 plants; in 1876, I raised 28 plants from the original bush and 585 in all; in 1877, I raised about 3000 plants, of which my brother bee-keepers have availed themselves of quite a share. They can be planted any time in the month of April. Set 3 feet by 6 feet, and cultivate as corn.

We frequently have persons call to see our apiary, ask questions, &c. We take pleasure in showing them anything of interest, and answering a reasonable number of questions, but there is one class I wish to allude to, and such have just left. They came 10 miles to see things and ask questions. This was all right, but among the first questions I put to such is: “Do you take a bee journal?” Usually those who are over inquisitive do not, and will remember but very little you have told them. Such were my visitors to-day, and after spending 2 hours of precious time to me, I quit answering questions. The last two questions were: “How do you transfer, and how do you raise queens?” I answered them thus: “It will be cheaper for you and me, for you to take a bee journal; then you can read at your leisure, remember and put in practice. What I tell you, you will not recollect.” The last words I said to them were, “Take a bee journal.”

On page 71 of the *AMERICAN BEE JOURNAL*, A. J. Cook thinks patents are a public benefit. I, for one, think otherwise, and will say in regard to bee-hives and apiarian supplies, that there has been far more money spent in patents than the benefits arising by the sale of them. Patents has been a bee-hive for sharpers, humbuggers, and a few workers. It has been the means of keeping the price so high on many improvements as to hinder their introduction to honest, law-abiding citizens.

Eliza, Mercer Co., Ill. D. D. PALMER.

For the American Bee Journal. Experience of a Beginner.

I have been taking the *AMERICAN BEE JOURNAL* for nearly 2 years, and I think I can safely say that no person can advance very rapidly in the culture of the honey-bee without having the *JOURNAL* as a guide, to instruct in the science that bee-keepers must necessarily possess.

I have been engaged in this pleasant and lucrative business for nearly 2 years, and I think I have succeeded remarkably well for a beginner. I have, 20 colonies in good condition.

I am partial to the Langstroth hive, which I am using. I consider it the best hive for general utility that I ever saw. I keep them well painted, and a little elevated, to protect them from the ground. I winter my bees on their summer stands, with nothing to protect them from the winter's cold, but a board roof or covering.

It is very important for bees to go into winter quarters with strong colonies. If weak ones, two should be put together, as it

does not pay to feed a weak colony through the winter, and then get them robbed in the spring; at least, that has been my experience, so far. Robbing is something that seems hard to control. The best preventive that I know of is to have no weak colonies in the apiary, and then each hive or colony has a chance to defend their homes and stores. We have had a very mild, wet winter; my bees have done well.

For the benefit of some beginners, (like myself), I will give my plan of building straight comb. My method will apply to those who advocate natural swarming, (of which I am a strong supporter). I think bees do much better when allowed to do their own swarming; they fill their hives much quicker than artificial swarms do. I have examined 6 of my hives that I put natural swarms in this spring, and in none of them found a single crooked comb. For building straight comb, I place my hive, containing new swarm, on a level place where I intend it to remain; then, with blocks, or something suitable, raise the back end about 4 inches higher than the front end. I have the comb guides of frame waxed with a little warm wax. When my hive is put to suit me, I regulate the frames in the same and close it up. Late swarms, should be given brood from strong colonies, to give them a start.

I read an article in the AMERICAN BEE JOURNAL, February number, on the subject of "Honey Dew," which met my approbation. I think it the best article on the subject I ever read.

W. T. SEARS.

Warren Co., Ky., March 13, 1878.

For the American Bee Journal.

How to Use Prize Boxes.

The present season will be the first that many bee-keepers will use the "prize" section boxes. I have learned a thing or two, that I think will be of value to those having had no experience with them. The first impulse will be to make the sections into a box of the desired length, either by "paper strips, glued on," or by some kind of frame to hold glass and frames together, by wedges or other means. The holes or slots through most honey-boards, or tops of frames, are none too large to allow the bees to pass readily into the boxes; and some will be very apt to put on these boxes, with the wide, flat pieces on the bottom, so as to cut off most of the space, into the boxes, and more or less dissatisfaction will be the result.

These sections are certainly a great improvement over anything we have had before; all that is wanted is to "give the bees a chance." If the honey-boards or top of frames are pierced to correspond, (or even a little larger than the slot-holes in the bottom of boxes,) all will be well. The majority of hives, however, are not well adapted to have these boxes put on in the ordinary way.

After some experience and considerable study, I have adopted what I consider "just the thing." Take a common lath, $1\frac{1}{4}$ inches wide, rip it into two equal pieces; plane, leaving it $\frac{1}{4}$ in. thick; make it of suitable

length, according to number of frames, and allowing for glass at ends. Now nail to the ends of these strips a piece of lath, planed edgewise. And now, tack a piece of tin on the sides, the width of the end pieces. This will form a very convenient pan to set the sections into; and if made exactly right, will hold the frames and glass firmly together, and form a very neat and strong box. But why this $\frac{1}{4}$ inch space over the frames? I have 2 objects in view in giving the bees this space:

1. It will allow them all the room there is to get into the boxes.

2. They will build comb, full size of frame, instead of leaving $\frac{1}{2}$ inch space at the bottom to run through, to get from one comb to another.

This is especially the case, when put on a hive with tight frames. If you object to leaving this space, and you can arrange to give the bees room enough to pass readily into boxes without, you can make the pan in this way: Take 2 strips of tin, for sides, of the desired length, turning $\frac{1}{2}$ in, like an

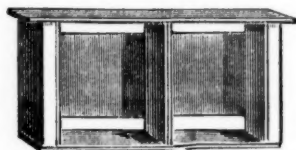
Then nail the wooden piece on the end, and the thing is done. If you find the frames and glass fitting too loosely, fold up a little brown paper and wedge in between the glass and the wooden ends.

Either of the two plans is an advantage over other methods I have heard suggested for holding frames while on the hive. The frames occupy no more space than when held together with paper strips. The holders are easily and cheaply made, and do not stain sides of frames as with glue.

Milan, Ill.

C. H. DIBBERN.

[We think the plan for holding Prize Boxes on the hive, as used by friends Doolittle, Betsinger and others, the best. That is, in a




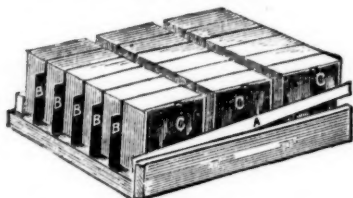
CASE TO HOLD TWO PRIZE BOXES.

"case" 2 inches wide on the top and sides, and $1\frac{1}{4}$ inches on the bottom, to hang in the hive by a projecting top-bar, as shown in the cut. This keeps the outside of boxes clean and nice for marketing, and the separators used between each case, prevents the combs from being built crooked. As they use a hive similar to the Gallup—their "case" holds but two Prize Boxes, as seen by the cut. If the Langstroth hive is used, the case just takes three,—and seven of these cases fill a story for the latter hive, making 21 Prize Boxes for each.

Another plan, and the best we have seen in that line, is the Rack, as made by Sperry & Chandler, holding 18 Prize Boxes, with the Separators between them, marked B B

in the cut. The wedge, A, holds all with a vise-like grasp. The outer boxes are glassed, as they stand on the hive (C. C. C.). By removing the wedge, A, any box may be instantly removed, examined, returned or replaced by an empty one—the spaces between the rows readily admitting the fingers, for that purpose.

These, so made that they rest at each end on a piece of sheet-iron bent thus , prevents their being fastened by propolis. A piece of tin, 2 inches wide, running under the $\frac{3}{4}$ in. strip, dividing the rows of boxes, projects $\frac{3}{8}$ inch on either side and forms an excellent support for the boxes. The separators are 5 inches wide, and rest on the frame of the Rack, as seen at B.



RACK FOR LANGSTROTH HIVE.

A similar Rack is also made, containing 12 Prize Boxes, for the American hive, and Worrall's Centennial hive.

Friend Dibbern will here see some of his ideas already adopted, and from these plans for obtaining comb honey in the most marketable shape, he may be able to glean something even more *progressive* than his own ideas. Comparing Notes, in this way, is advantageous to all.—Ed.]

For the American Bee Journal.
Texas as a Bee Country.

I came from Michigan to Texas nearly 3 years ago. This portion of Texas, where the climate is so mild and genial—where flowers bloom nearly all seasons of the year, and where bee food can be raised at ALL seasons, in inexhaustible quantities—is one of the best and most profitable bee countries in the world.

The question of "Which is the best method of wintering bees" does not trouble us here, for there is scarcely 20 days during the entire winter but bees wintered without protection on their "summer stands" will be out "taking a fly," and generally "making honey while the sun shines."

The possibilities of South-western Texas are, as yet, almost unknown. The stock business, and cotton have heretofore monopolized the attention of the people, even to the exclusion, until recently, of corn and other necessities of life. Nearly "everything under the sun" will grow in this

soil—most things with care, growing prodigiously. With a climate as genial as any in the world, and perfectly healthy, what, I ask, is needed here but industry and a little time to make a man's home and its surroundings "a thing of beauty and a joy forever?"

WM. C. GREEN.
Oakville, Live Oak Co., Texas.

For the American Bee Journal.
The Hive I like best.

I like a frame 12x12 inside, because the larger frames are not as good for nuclei, require a larger or deeper extractor, and I have noticed, as well as others, that the queen prefers as nearly a perfect circle as the comb will admit of for laying, especially early in the season. So here are 3 good reasons for adopting that frame.

Last year my attention was particularly directed to the distance between the frames, by an article in *Gleanings, or Bee-Keepers' Magazine*, by Mr. Harrison, of Virginia.—I made the experiments he suggested for a beginner, and sure enough, at $1\frac{1}{2}$ inches apart, from center to center, the bees built on the inside of the guides, and very commonly made their combs between the last frame and side of the hive; so I decided upon $1\frac{3}{8}$ inches.

Next, the hive question came up, and from all I could learn from books and bee papers, the best plan was to winter on summer stand, provided one had a hive that would resist the winter's cold; and such a hive is calculated to resist the summer's heat as well. Not able to afford money or time to experiment with Finn's, Worrall's, or other double-walled, high-priced hive, and having tools of my own, after writing for estimates from several markets and hive factories, I decided to make them myself; this year at least. Took $\frac{3}{8}$ stuff, dressed on one side, made a brood chamber that is a cube of $13\frac{3}{4}$ inside, with $\frac{1}{2}$ x $\frac{1}{2}$ in. rabbets; nailed a strip, 1 x $\frac{1}{2}$ inches, round outside, 1 inch from top, and another around the bottom edge. For sides of outside wall, or case, took the same stuff, but turned the smooth side out, instead of smooth side in, as with brood chamber; cut the sides so as to put back end in mitring, and extend in front for portico, and cut to slope roof of portico from $1\frac{1}{2}$ inches from top of case to 6 inches from top of bottom board. Cut front board of case to fit under roof of portico. Bottom board is $16\frac{1}{2}$ x30 inches, grain across, and sides and back of case, cover and mask it, so as to keep off all wet and cold. Nailed bottom board to oak sills, running fore and aft of hive, and cut sloping in front for bees falling on ground to crawl up on, as given in Cook's *Manual*.

A screw on each side, through low edge of case, fasten bottom to hive for transportation. Cap 7 inches deep, house-roofed, and triangular strip to cover, joined at edge.—This for box honey, and tiered up, "Simplicity" fashion, if needed; using Quinby's hive clasps for lower belts if you wish; but for extracting, I have made an upper story, just like brood chamber, double-walling it the same way, and making a flat cover with



a ridged roof over it, to guard against heat. Upper ventilators are through flat cover, and then through gables of roof, ventilators for brood chamber through lower, back corners of inside walls and front, lower corners of outside walls, none of them admitting light.

Now, is it not best for a beginner to make haste slowly, and use such a hive as this, than to go it on the cheap and use a poor hive? Working from patterns, I can make 2 in a day, with the 7 inch cap. The hive for extracting, doubled and complete, will take 50 feet of lumber, but it can be used, temporarily, single, in part or throughout, till you have time and means to put case on; and so can many others.

A 12x14 glass can be put into the back of brood chamber, with a close, double cover, hung on hinges; but, this would be more curious than useful, perhaps, and when you have many visitors, a source of annoyance to the bees, the thing most important is to have a hive of the proper size, but especially to resist the changes of temperature and the extremes of every season.

Those looking for a business in which they can make something out of nothing, or a great deal out of very little, will have to look farther than bee-keeping before they find it. Bee-keeping will pay, but only in proportion to the amount of capital, intelligence and industry invested in it. It takes, perhaps, less money to start in it, but what it does not call for in cash has to be made up in knowledge, pains-taking, and persistent industry; and to any, or all, who think of trying to grow their own honey, I would say, get a book before you get any bees.

Winchester, Ill.,

WM. CAM.

For the American Bee Journal. Wintering, Robbing, &c.

I commenced last season with 27 colonies of bees; part hybrids, and part pure Italians, in the standard Langstroth hives. Of these colonies, 7 were quite weak. The others were in good condition. I hived 7 swarms, one of which I gave away, and 2 left for the woods after being hived. Other swarms came off, but at times that I was not observing, and they went off. So my colonies were increased to 31. From these bees I took about 2,500 lbs. of honey, part comb, but most of it extracted. This honey was gathered mostly in June and July. We have no fall harvest here that amounts to anything. My honey netted me \$500.00. A portion of the honey I take, (that which is gathered when the linden tree is in bloom), when poured from one jar to another, effervesces. It does so every season, and continues to till cold weather. Persons not familiar with the honey would at once pronounce it souring. But it never has soured. Leaving it in the hive till capped, it effervesces the same.

In the fall I thought I had 31 colonies in good condition for winter. All had a good supply of honey, and seemed to have plenty of bees. About the 1st of Dec. I discovered 1 colony dead and all stores gone; robbed, I suppose, by other bees, after bees had died, or were not in condition to protect

themselves. Shortly after, I found a colony with many dead bees on bottom board, but before had noticed robber bees disposed to trouble it. I opened it and found bees sluggish. I changed them to a new hive, but they soon perished.

About the middle of December I discovered my bees eagerly engaged in robbing.— Did all I could to control it, but with little success. Several colonies were destroyed. The ones attacked must have been affected similarly to the one above mentioned; for my assistance availed nothing. Had they been in vigorous condition, the contraction of the entrance would have enabled them to resist the robber bees. It may not be improbable that 1 or 2 of the hives were queenless.

After the cold spell in January, I found several other colonies dead, and several very much reduced in bees. Some of these colonies had nearly every cell filled with honey, a considerable portion of it uncapped, and some quite thin. One colony of Italians had their hive filled so that hardly an empty cell remained, and with the same kind of honey. They were pretty strong, and passed through the cold spell in January, though having so much honey, without injury.

I continued to lose my bees till I lost 19 colonies out of the 31 I had in the fall. I have kept bees since 1872, and this is the first loss of bees in wintering that I have ever experienced. 1 winter on summer stands; and till this winter, 1 or 2 colonies, lost from oversight as to stores, or by the loss of queens, has constituted all the failure I have met with in wintering bees.

Goshen, Ky., April 2, 1878. JNO. RULE.

For the American Bee Journal. Detroit Honey Dealers.

Press of business prevented our reading the excellent article from the pen of W. L. Porter, in which he kindly informs us, (the bee-keepers of Sanilac and Lapeer counties), that the dealers of Detroit charge us with buying sugar to feed to our bees, to make honey. Now, I am acquainted with most of the bee-keepers of Sanilac, living, as I do, in the center of the county; and I know, and am authorized to state that the charge is false.

We invariably go to Detroit in the month of October, to market our crop, and any person should know, that knows anything about bees, that we cannot feed sugar or anything else after that date. Some of our bee-keepers, while in Detroit, buy their sugar, tea, coffee, boots and shoes, also other necessary articles, to last them till their next yearly pilgrimage to Detroit, for the purpose of selling their honey. Why do those dealers not charge us with feeding tea, coffee, boots and shoes to our bees to make honey? We will call a convention of the bee-keepers of Sanilac and Lapeer counties some time in June or July, and will probably take some steps to teach a lesson to the dealers in Detroit, by sending our honey to, and purchasing our supplies in, a more honest, and less suspicious market.

JAMES ANDERSON.
Farmers P. O., Sanilac Co., Mich.

In this county, our main honey crop is from white clover; but very little basswood can be found. I have been cultivating alsike, for the past 8 years; find it splendid for the bees, and when sown with timothy makes better hay than red clover; it never has winter-killed with me, while red clover often does.

Now I wish to tell my brother bee-keepers how I got 3 crops from the same piece of land the same year, for the past 8 years.—As soon as I have a piece of grain harvested, I plow and sow to buckwheat—the past season I sowed 10 acres to buckwheat—where I have a good crop of wheat. Owing to dry weather, it did not sprout till the 37th of July; had a yield of 22 bushels per acre, and realized \$1 per bushel, by selling the flour. So there is where the third crop comes in. The past fall for buckwheat honey was not a good one, yet my bees gained about 15 lbs. per colony, during buckwheat bloom. This buckwheat honey was nearly all stored in the brood chamber. I have no idea what amount of honey can be gathered from an acre in a good season.—My bees had access to my neighbor's 11 acres of buckwheat, where he harvested a crop of barley; yet, while my bees visited his, other bees came to mine. I believe it will pay farmers, who are bee-men, to try this plan.

I said my bees gained 15 lbs., per colony, during buckwheat bloom; let us say 10 lbs. Now 66 colonies would make 660 lbs., or 66 lbs. per acre. This certainly will pay for sowing to buckwheat, even if we get no buckwheat cakes on a cold winter morning. Having purchased a few colonies at a sale, I now have 70 colonies in good condition, all on their summer stands. GEO. L. GAST.
LeClaire, Iowa.

For the American Bee Journal.

Spring Dwindling, Hives, &c.

I have just returned from my other apiary of 22 colonies; all answered to the roll-call, and are gathering pollen in great abundance. The roll-call at home is 64; 3 having "gone up," by my negligence or oversight. All, thus far, seem to be in good condition. The honey season here will not open till near the 1st of May, and by that time, half, or more of my bees will be shipped off, as is my custom every spring.

SPRING DWINDLING.

Here I would recommend to all who wish to understand the Italian bees and their difference from the native bee, to read again the article in the March No., page 74, by I. P. Wilson. His experience, with the exception of "cellaring," is the same as my own. I have had no experience in "cellaring" bees—always winter on summer stands, and this last winter I have given the strong colonies no other protection than to contract the entrance of the hive; for the weak colonies, quilts were spread over the frames, with the exception of the 3 I neglected, and that died in consequence.

As to safe wintering, I will say this: I can take any number of colonies in Nov., and fix them for winter, in such a manner that I can insure every one to winter safe, no matter what sort of a winter.

It was several years before I could account for the Italians being so weak in March. My first discovery of the cause was as follows: One day in Feb., as I came from the tan yard, with a roll of leather, and my overcoat buttoned tight, for

it was cold. Two bees lit on the leather, to rest. They were both Italians, and nearly a quarter of a mile from the apiary; they remained on the roll till I threw it down at the shop door, and were so chilled by that time, as to be unable to fly.

On another occasion, one evening after they had had a fly, I walked out in the apiary, and to my surprise, the fences, tops of hives, &c., were covered with chilled bees, unable to move. I think, on this occasion I lost, at least, bees enough for 2 or 3 colonies. I have seen this repeated several times, but never, as yet, have I caught black bees guilty of the like. If the Italians would only be as careful as the natives, while the weather is too cold, not to venture out, they would come out in the spring stronger than the natives, but as the case stands, they are not more than half or two-thirds as strong as the natives on the first of April. Yet, they recuperate with such rapidity as to surpass them when the honey season has fully opened.

HIVES.

In speaking of the invention of hives, we may well say their "names is legion." I have examined several new patents during the last 6 months, none of which I care to try, even if given to me; but not to injure the sale of any of them, I will name none of them; but will say, the only men who are qualified to invent a hive, that will answer its purpose successfully, are none other than those who have had close experience with bees for 8 or 10 years, at least; and such as have a thorough knowledge of the habits and manipulations of the bee. Yet, how few novices there are in the business a year or two, that do not invent a hive!—This injures the bee business as much as anything. Such novices would do much better to follow, instead of trying to lead the old veterans. How forcibly does the present state of things remind me of the fulfillment of a dream I had a few years ago, while Mr. Clark was editor of the JOURNAL. I wrote the dream and forwarded it for publication, but friend Clark saw fit to drop it into the waste basket—the first I ever wrote that found that destination.—The dream is as fresh in my memory to-day as the day I wrote it; and is now being fulfilled to the letter. I will not give the dream here, but give one single instance, to show its fulfillment: I saw all these hives and box patents, in the shape of different birds, in one large tree, and when a tremendous large gun was fired at them, all that were killed, have lain dead since. The Langstroth hive was wounded in the wing, but her wing healed up and she finally triumphed.

When experienced men look at a new patent, it does not take long to see the faults; but novices, having very little experience, are deceived—buying, not only the right, but the county and state, and finally, in most cases, come to grief. I could name not a few such cases. But I must not be understood as discouraging inventions. I am in favor of them; but there are scores of such inventions never worth patenting, and almost worse than useless. This is the class of articles I object to, and

I would again caution novices to consult the older bee-men, of long experience, before leaping into the dark.

BROOD NEST.

It should never be disturbed. I used to extract brood frames and all; but of late, I have discovered it to be very injurious. If the 6 middle frames of every 10 framed Langstroth hive were let alone, and never disturbed, the colony would be stronger, and winter better on good, ripe honey, and consequently, free from dysentery and other disease. If it was not for finding the queen, and knowing what was wrong with a colony, &c., I would recommend a hive without frames for brood nest. 1800 cubic inches inside, oval at top, to a space of 2 or 3 inches, instead of a flat top. The upper story of a double Langstroth can be placed on top of them. The brood nest being too small to store honey, will force the bees to the top; and that being oval, instead of flat, gives them more rapid access to the top, and concentrates the heat to that point. I shall try a few of them the coming season, but wonder if they are already invented and patented unknown to me.

DIVISION BOARDS.

I read that some one has a patent on division boards. I have been using them since 1866. Did his patent commence previous to that year?

R. M. ARGO.

Lowell, Ky., March 7, 1878.

[Certainly not. N. C. Mitchell claims a patent on the use of the Division Board, in connection with "lugs," (i. e., small pieces of iron, for legs), and rubber strips at the sides, &c. A plain Division Board is neither patented nor patentable. His claim covers that combination only. That patent was not issued till March 9, 1875—9 years after friend Argo began to use them.—ED.]

For the American Bee Journal.

Bee-Keeping in Minnesota.

As the bee season is about to open for 1878, perhaps it would be in order to report last season's business. I commenced, a year ago, with one colony, all that I wintered, out of 5. Bought one more of Ch. Dadant & Son, and 3 of I. Ingmundson, (the most successful bee-keeper in Mower county). Two colonies did not swarm, but the other 3 increased my stock to 23. One giving me 7 swarms, and all filled their hives; and between them, over 100 lbs. of surplus. All wintered well, and are strong in bees, brood, and stores now, and hard at work every fine day on piles of fine sawdust, old bits of comb, and coarse flour.—Hundreds of them go a quarter of a mile to sugar barrels and refuse, around grocery stores, working like beavers. Some of my best colonies do not appear to have used 5 lbs. of honey all winter; while others, equally strong and prosperous, have taken 15 to 20 lbs. Who can explain why it is?—They are both strong in bees, not only

apparently but certainly, after careful examination.

This is the most singular winter ever known in Minnesota. Only three or four times has the mercury run down below zero, and only once did it reach 11° below.

Bees would have wintered finely on their summer stands, but who supposed they would plow, every month in the year, as farmers have done here.

I buried my bees, by digging a pit, 3 feet deep; with board floor, sides and roof; filling up all spaces between hives with dry, oat straw, and putting about 6 inches deep over hive, leaving a space above for air to circulate; put in 2 stove-pipes for ventilators, one extending below the bottom of the floor, and the other just reaching through the roof, for foul air to escape. Covered the roof with 6 inches of straw, 6 inches of earth, another coat of straw, and about 4 inches of earth to finish off; regulating the temperature with dampers in ventilators, and keeping a thermometer in the escape ventilator. I visited my bees as regular as the day came, and listened for their cheerful hum very anxiously, during the warm, foggy weather of December. At last, the temperature began to raise, and all the ventilation I could give them was of no avail; it run up to 70°, and it seemed as though they were swarming below. Opened out the pit and gave them air, cooled down to 48°, and covered up again, where they remained quiet until March first, when I began to take out 6 a day, until all were out. Have not a mouldy comb or hive in the lot.—They were buried 114 days.

I think I have found the secret of safely wintering. Thanks to very valuable suggestions from I. Ingmundson, Esq., and by using a little common sense, with considerable labor. But where is the true bee culturist who does not love to work among his beautiful pets! I can sit and watch my little laborers for hours at a time, and learn something of them every day, helping a poor, loaded, tired worker into his home, when he drops exhausted, a few inches from the entrance, unable to rise on the wing again; and a bee does not like to crawl far, preferring to light at his own door, close by the sentinels, who stand there to receive the password.

I figure up my bee experience as follows, to date:

Total cash outlay for bees, hives, guide-comb, JOURNAL, extractor, Bingham smoker, cans and the whole paraphernalia\$117 45

I have 23 Italian colonies, well worth \$12.00 each, here, but we will call them @ \$10.00\$230 00
 Extractor, cans, &c., on hand 20 00
 Eight extra hives 8 00
 Comb honey, 100 lbs. " complete 20 00
 Honey sold, cash 47 00
 One queen sold 2 50
 Transferring, and hive furnished a beginner 2 50

Total 330 00

Less total outlay 117 45

Total net profit 212 55

This makes a very satisfactory showing, and I think demonstrates that bee-keeping will pay, with "good luck." But don't rob these faithful servants so that they must starve before another spring! Leave them *enough*, or *more* than enough; it is not lost, and it will encourage them to build up



strong, early in the spring, give earlier swarms, and more surplus. This is my theory.

In conclusion, I would say, should this article be the means of starting some one in the business, they should bear in mind that about 9 out of 10, who attempt bee raising, fail, for want of "luck," (i. e. study and attention), and if you have not patience, and some time to see to them, don't go into it, but as the saying goes, leave it for "those who are too lazy for anything else but keeping bees," which, I think is the reason of so many failing in honey producing.

I want Italians, only. I see by the JOURNAL that a few prefer the blacks. I have tried both, and do not want any more bees that furnish a home and food for moth worms, to their own utter destruction. I find no difficulty in getting Italians to work in boxes. It is not their nature to be idle when they have plenty of room to store in, whether it is in boxes, hives, frames or even glass jars and tumblers. Give them a little nice comb for a starter—that is my method of coaxing them.

I send you a shadow of myself, for your collection, dear Editor.

Success to the JOURNAL. Long may it flourish. C. F. GREENING.

St. Paul, Minn., March 8, 1878.

[Thanks, friend Greening, for the shadow. It is placed up in our sanctum—looking over our desk, where we toil every day in the interest of all who love the honey bee.—ED.]

For the American Bee Journal.

"Dadant vs. Himself."—Answer.

In the A. B. J. for April, George Thompson wants to know when and why I have changed my views on the purity of bees in Italy. Here is my answer:

Although I had not received a single impure queen from Italy, I had heard so many complaints about the purity of imported queens, that when I started for Italy, I was altogether persuaded that the Italian race was not pure.

On my arrival at Milan, I narrated to L. Sartori, that such was my impression. He said that Lombardy was the home of the Italian bee, and that nowhere in Italy were the bees as pure as at Milan. Of course, my letters from that place were imbued with this idea. Soon after, I learned that Sartori was only a queen dealer, and bought queens from every part of Italy—from Piedmont to Venetia; from the Alps to Tuscany. Then I reflected that Mona, a queen dealer too, who had journeyed all over Italy, had no interest in writing that all the bees from the Alps to Brindisi are pure; but, that on the contrary, Sartori was interested in making me believe that there were impure bees outside of Lombardy. I saw, also, in the reports of the Italian bee journal, *L'Apiculture*, that there were queen dealers, in parts where Sartori had told me that there were impure bees. I received good queens from those parts; then I concluded that Mona was right, and that I had misplaced my confi-

dence in believing the assertions of Sartori.

To give my readers the rate of confidence to which this dealer is entitled, I will quote a part of his advertisement that is in the British Bee Journal. He writes, that his "sole object in selling queens, &c., is to forward the interests of bee-culture, without regard to his own." Yet, if we look at his prices, we find that his goods are advertised at 25 per cent. more than the rates of his competitors.

I am just perusing the article by Mr. Geo. Thompson, on the improvement of the Italian bee, page 127, April number of 1877. He quotes several testimonies, to sustain his idea that the bees of Italy are not pure. Mr. Deus, of Dusseldorf, found the orange colored bees at Genoa, and the black bees at Nizza; and further, another writer says: "We were surprised, on our arrival at Nizza, to find only the common bee there."

For an answer, I beg my contradictor to open a map of Italy. He will see that Nizza, or Nice, is outside of Italy, separated from this kingdom by the Alps. Nice is a French city, which belonged to Italy some 20 years ago, although French by origin and language.

My contradictor has now to rely on Varro, Columelle, Virgil, and Spinola, all writers of another era, to prove his assertion that the Italian bees are a hybrid race.

Hamilton, Ill.

CH. DADANT.

For the American Bee Journal.

Marketing Honey.

During the past 20 years I have raised, bought and sold more or less honey each year, and I know what the trade demands. I was among the first, if not the first to introduce small packages of honey in the Boston market, and to advocate the use of small boxes. By consulting the back numbers of the JOURNAL, perhaps it may be found that I was the only person to recommend the use of 3 lb. caps, some 12 years ago. Now the trade demands even smaller packages. Sections that hold 1 and 2 lbs. of honey are as large as are needed; in fact, I hardly think that larger boxes will ever be called for again.

Last fall I bought and sold 10,000 lbs. of honey. It was of an excellent quality, and mostly in 4 lb. boxes. I could not get any in 1 and 2 lb. boxes. I have no doubt that I could have sold more, and at much better prices, had it been stored in smaller boxes.

The crates contained too much honey, and one man could not handle them alone. Not over 30 lbs. should be put in one crate, and any amount between 10 and 30 lbs. will not be far out of the way.

The smallest crates were sold first. Not only do small crates sell more rapidly, but the danger of breaking and damaging the honey in handling is greatly increased by using large crates. It is enough to make one's blood boil, to watch the loading or unloading of a lot of honey. They will put a crate of honey on the "truck" when it can be handled much easier and to better advantage without doing so.

I had a lot of honey shipped to Boston,

and was not there when it came in, as it was unloaded in the night, and a worse lot of honey no one ever beheld. There was one ton of it, and all but about 500 lbs. were badly broken.

The bee-keeper who puts his honey up in accordance with the demands of the market will be sure of a good price and quick sale; but the one who uses large, coarse boxes and crates, and a large amount of wood and glass will come to grief. H. ALLEY.
Wenham, Mass.

For the American Bee Journal.
Bee Items.

The past winter was one of the most favorable for bees in many years. I wintered 49 colonies on their summer stands, and did not lose any. All but six of them were at Newcastle, and I did not see them from the 2d of January until the 9th of April. At the latter date I found one colony starving, at least three-fourths of the bees being dead, and the rest barely alive. I fed them immediately and saved a good queen and enough bees to form a moderately strong nucleus. Expecting to remain at Logansport for at least one year more, I moved my bees to this place; the removal by rail, a distance of 80 miles, being effected without accident or loss.

THE SPRING HARVEST.

The show of fruit blossoms, peach, cherry and apple, is simply immense. The trees could not be fuller than they are. The peach and cherry trees, at the present date, are passing out of blossom, and the apple trees are just in their glory. From the time the fruit blossoms begin to make their appearance, until this time, the weather has been almost uninterruptedly fine, and the secretion of honey has been very large.

RED BUD OR "JUDAS TREE."

I have noticed in the bee journals, for some months past, inquiries and statements concerning this tree as a honey producer. I have known for years that bees worked on it, but I had not thought of it as especially valuable. At Newcastle, the only place where I have given much attention to bee-keeping are very few trees of that kind, not enough to make it practically of any value. Here it abounds. Biddle's Island, an island in the Wabash river, within the city limits, has a large number of the trees, and there are many of them in other localities within reach of my bees. The yield of honey from them is really astonishing. The bees that have visited the red-bud are readily distinguishable from others by having more or less of the red pollen adhering to them. I have never seen bees carry larger loads of honey from any source than they do from this. Some of my colonies are storing surplus honey, and in a few days I expect to extract some red-bud and fruit-blossom honey.

ROBBING.

I have discovered, within the last 24 hours, a case of robbing in which the stock being robbed did not seem to be able to distinguish the robbers from the bees of their own hive.

The honey was being carried away as fast as a strong stock could carry it, the robbed stock being also strong; and the bees whose stores were being appropriated were working away as if there was nothing wrong. The transposition of the hives (the robbing and the robbed), this morning, has put an end to the mischief. I have observed a number of cases of the same kind before, and I have no doubt that they are more common than is generally supposed. It seems strange that bees should commit robbery when honey is so abundant everywhere; and stranger still, that while the bees that were suffering the loss would seize strangers from other hives, they would permit the bees of that particular colony to carry away their stores without molestation. The only explanation I can give is, that by some means the two colonies have acquired the same scent. M. MAHIN.

Logansport, Ind., April 22, 1878.

For the American Bee Journal.
"On Novice."

We very much dislike to occupy the valuable space of that best of all bee journals—the old AMERICAN—with so poor a subject, but force of circumstances leave us no alternative. We shall endeavor to make the disagreeable task as brief as possible, trusting to a kind Providence to deliver us from a like dilemma in future.

In December last we sent a card to the A. B. J. saying that we should give its readers a few choice extracts from the history of "that \$50 damages." Several causes have conspired to delay the fulfillment of that promise—chief among them being the *quasi* promises of A. I. Root.

Under date of Dec. 5, 1877, Novice wrote us an apologetical letter for his previous treatment of us, and in conclusion said: "The matter of the foundation is, so far as I am concerned, perfectly satisfactory." In view of what he had published at the time, we thought he ought to say as much in "*Gleanings*," and wrote him to that effect. In his reply to our suggestion, he offered to leave the whole matter out to a third party for arbitration. But as Novice had expressed himself as being *perfectly satisfied*, we didn't see anything to arbitrate, as we only asked him to say publicly what he had admitted to us, and we told him as much. He then wrote us another of his *peculiar* letters, saying that he was "in a quandary;" that he felt that "something should be said" to us, but that he didn't know what to say, etc. Further on, in the same letter, he said, "Although it was right to give it when you asked that amount (the \$50 damages), I cannot for a moment think it was right for you to take it. I can conceive of no explanation that would make it, nor can the people." We thought it a *little funny* that if it was so "very naughty" for us to take the money, how it could be so *proper and right* for him to give it. Perhaps he saw the muddle he was getting himself in as he gave this reason for his action; "I gave my money for the sake of peace and good will." It occurs to us, however, that the many bee-keepers whose rights and feelings he has infringed



with a ruthless hand, would require a more satisfactory reason.

Becoming weary of a protracted correspondence about a matter which Novice admitted was perfectly satisfactory to himself, and yet which he failed to make so to us, we gave him this ultimatum—either make a satisfactory explanation to the bee-keeping world, or we should do it for him. His reply was characteristic of the man. "I can see no reason why the matter should be given to the public at all," he wrote, and then followed his usual religious exhortation. Thus it will be seen that our efforts to attain an amicable adjustment were a total failure. A dozen lines from the pen of this man, who unceasingly parades love to man and devotion to God, would have settled the matter for all time. But he saw fit to withhold them, even after admitting that something of the kind was due me.

In view of all that has been said, we give the readers of the A. B. J. a leaf from the history of this matter. On July 20, 1876, we shipped A. I. Root some wax to be made into comb foundation. We ordered it made into sheets 12x18 inches, and 6 square feet to the pound. We weighed the wax in the office of the Am. Ex. Co. here, but did not give weight in writing to Novice, as we wished to see if our weight tallied with his. Well, it did—within *ten pounds*. Novice was to have one-half of wax for making it, but he said it was "extra nice," so would send us a little more than one-half of the foundation. We at once notified him of the error in weight of wax, and inclosed Ex. receipt, showing weight. This brought a card from Novice saying *somebody* had "made a mistake of 10 lbs., which we exceedingly regret." He afterwards paid us for that amount.

In the meantime, our 24 lbs. of comb foundation came; but instead of being 6 square feet to the pound, as we had ordered it, the greater portion of it was made less than 4 feet to the pound. Having had only a limited experience with the comb foundation, we supposed Novice's experience had induced him to take the responsibility of making thick foundation. The glowing reports which were being constantly published in *Gleanings* had prepared us for experimenting extensively with the foundation, never dreaming that a failure was possible. But it *was* possible, all the same, and cost us more than \$200. In looking back over the past, and knowing what we do now, we would not have had it done, even for that amount. We wrote Novice about the matter, giving a detailed account of our experience, and left him to do as he pleased about the matter of indemnity. He replied that as we were "the dissatisfied party, we must certainly make out our own bill for damages." On the following day, (Sept. 9, 1876), in remitting for the 10 lbs. of wax, (above referred to), he said: "We thought best to pay you for this, leaving the bill for damages in making of the foundation, a separate item, at your will." This looked to us as though Novice intended to do what was right in the matter; so we wrote him that if he wished to help us bear the loss, for which he alone was responsible, he might send us \$50. Knowing full well,

however, how often he had *crawled* out of tight places before, we closed our letter with these words: "In conclusion I will only say, that if you can pay the \$50 *cheerfully*, you may do so; but rather than have any hard feelings in the matter, I would lose all." This brought an individual check on the Medina bank for \$50, and one of the funniest letters we ever received.—He went on to tell how hard it was to spare the money, and wanted to know if we wouldn't return it. Saying that if we didn't, he could not go to the Centennial, in Philadelphia, &c., &c. The next number of *Gleanings*, however, said that Novice *did go* to the Centennial, and took his "better half" along also.

On October 5, 1876, we wrote Novice a letter, giving in detail the losses we had sustained by using the thick foundation. The following is an extract: "Now, if you wish me to bear this loss wholly myself, I can do so. I *cannot* return a *portion* of the \$50, but I can return it *all*." But we received no demand for the money, but did receive a most bitter and vindictive letter from Novice, (dated Oct. 10, 1876), charging us with "willful falsehood and fraud," and calling us pet names generally.

HERBERT A. BURCH.

South Haven, Mich., April 18, 1878.

Kansas Bee Pasturage.

For 2 years we have had very fair seasons for our bees, with the exception of the months of June and July. Red bud briers, fruit trees, &c., in May. In June, bees dwindle; there being nothing for them to forage on. In July they barely live; at the end of the latter month they are not as strong as at the end of May. I was not aware that white clover would succeed in this State, until last year. I was at Leavenworth last fall, and saw there an abundance of it, everywhere in that town and vicinity. For 20 miles west, towards Lawrence, I saw thousands of acres of it, as fine as any I ever saw in the State of New York, also 20 miles south to Kansas City, Mo. I sowed about 2 ounces of seed on the prairie sod, last season, where the ground had not been broken. I could not have wished it to take better. White clover will, in a very short time, be a grand success here.—During the months of August and September hart's-ease affords abundance of forage for the bees. In fact, it is worth all the other plants we have in this region. Every cultivated field is full of it. There is plenty of golden rod here, but bees scarcely touch it, when, at the same time, hart's-ease is swarming with bees, working with all their might. The report of the National Beekeepers' Association, last fall, was worth twice the year's subscription. It was, by far, the best report that I have ever read. There was no foolishness in it, and that is considerable to say for any such public proceedings. No man who has even but one colony of bees can afford to do without a *good* bee journal. I read more than one, but recommend all my friends to take the AMERICAN BEE JOURNAL.

Muscotah, Kan. H. S. HEATH, M.D.

Conventions.

Parasites of the Honey Bee.

READ BEFORE THE N. E. CONVENTION.

A year ago this winter, while examining the dust which is found upon the bottom board, directly under the cluster of bees, in every hive that is wintering well, I discovered several kinds of minute insects. I was making this examination with a strong magnifying glass, for the purpose of satisfying myself more fully in regard to the theory offered by Mr. M. Quinby, in 1874, as to the feces of the bees being voided in a dry state. And here let me say, though foreign to the present topic, that I am fully persuaded of the correctness of this theory, and the importance of the discovery is yet to be recognized as second to none in its bearing upon the requirements for successful wintering.

During both the past and present winters, I have at different times examined hives in some of the leading apiaries of our State, and in every instance have found some varieties of these insects or parasites, to more or less extent. I have so far noticed 6 different forms; whether all distinct varieties or not, I am unable to say. One kind I have hardly been able to retain possession of long enough to determine much about it. It is of a bluish color, and about as fixed in its habits as a flea. When I thought I had him he was generally not there.

It has long been claimed by our best writers, on the subject of wintering bees, that one of the prime requisites for success was perfect quiet. It has also been noticed by many that while some swarms remained very quiet, others could be heard buzzing, and would be constantly uneasy. The fact that some were quiet proves that the uneasiness was not due to any external disturbance. It has often been a subject of much perplexity to me why these different conditions should exist.

Some writers have advised setting such restless swarms upon their summer stands for a purifying flight, and this may be desirable, inasmuch as they have necessarily been stimulated to a large consumption of food by this undue excitement; but the original cause of this disturbance has not yet been understood.

I have given the subject my particular attention, and have found such swarms clearing the dust from the bottom boards, and upon examining this dust as they had thrown it from the entrance, I discovered these parasites in large numbers that had been ejected from the hive. I find the Italians much more liable to be disturbed by them than the natives. Their tendency to defend themselves is here manifest, and they are more easily aroused to action.—This may account for the cases that are cited where the natives winter better than the Italians.

Another proof that the worrying of swarms while in winter quarters is occasioned by these pests, is the fact that the

bees gradually leave the hive and fall upon the cellar bottom; and when set upon their summer stands, weak in bees, will be found to be throwing these parasites in large numbers from the hive. They are found in all parts of the hive where the bees can not reach them. Where the mat hugs closely to the top of the frame, they will often be found between it and the frame.

It has often been noticed that during the spring and summer months, young bees are frequently thrown from the cells that have from some cause died before maturing.—Cases have been reported where they have been so removed in large numbers. It seems very probable that these may have been destroyed by the parasite.

I find that some of them frequent the hive, seemingly for honey alone, others seem to be found only in the dust under the cluster, while yet others appear to feed upon the bees, especially the young and immature bees that are thrown from the combs. I have, as yet, been unable to determine whether or not they destroy the bee in the cell, and are thrown with it to the bottom board. It has often been noticed that during the spring and summer months young bees are often thrown from the cells, that have, through some cause, been destroyed before maturing. Cases have been reported where they have been so removed in large numbers. It seems very reasonable that these may have been destroyed by parasites.

It has been demonstrated by the experience of many, in wintering, that when the ventilating slide in the bottom board is left open, the bees, in most cases, cluster lower, and directly over the opening; and are found to keep more quiet. This method has been recommended because of the evidently better results. I had supposed that the advantage lay in the fact that they were more certain of their freedom from the opening being so near, and I yet believe this to be a condition which favors this result. It occurs to me, however, since my acquaintance with these parasites, that they were also more easily removed from the hive when it was thus arranged. I have examined the dust which dropped from the cluster through this opening, lodging upon the top of the hive, beneath when in winter quarters, and in nearly every case I find these insects.

It has been found to conduce to successful wintering, to place a rim under each hive, raising it a short distance from the bottom board. In this case, the insects in the dust would be farther from the cluster of bees and less likely to annoy them.

It is quite probable that at least some of these varieties came to us with the introduction of the Italians, and while their presence is evidently harmful to us, I am very much inclined to the belief that in some form, they have, in many cases, removed the greatest curse to American bee-keepers, viz: foul brood. It has ever been a mystery how this plague was so suddenly overcome, and I can in no way account for it so satisfactorily as that it was caused by a parasite feeding upon the brood in a certain stage; and that its destroyer, in the form of another parasite, has over-



taken it in turn. This is corroborated by our experience with cabbage and currant worms, potato bugs and other pests, which in a few seasons of unchecked devastation, are overtaken by their enemies, and their ravages cut short, in a sensible degree.

To what extent these pests are to affect our pursuits, is yet to be determined. If this paper shall induce others to assist in investigating the subject, and report the results for the advancement of our science, the end for which it is intended will be accomplished.

L. C. Root.

How to Prevent Swarming.

READ BEFORE THE VT. ASSOCIATION.

It is well known that bees that do not swarm will store much more honey in boxes than they would if they threw off a swarm or two, for the reason that they are so reduced in numbers that it takes nearly all that the few remaining workers can do to furnish honey enough to feed the young bees that are hatching so fast at that season of the year. Should they gather more than the young consume, they have plenty of room in the brood comb, made vacant by the hatching bees, to store all the surplus—for a time at least,—when if they had not swarmed the queen would quickly deposit eggs in the cells made vacant by the hatching bees; therefore they would then be obliged to store their honey in boxes. It will readily be seen, then, that it is very important for the honey producer that he should prevent swarming as much as possible. Now how can this be done? It has always seemed to me like working against nature to try to prevent swarming. But then I have noticed that some colonies do not swarm, and they are the ones that make the most box-honey, and at the same time everything in the brood chamber seem to be in good order. Now if they were not working contrary to nature, why not other colonies be prevented from swarming if they are placed in the same condition? In the first place we should breed from non-swarming strains. I think this is a very essential point; in fact it almost wholly depends upon the queen, at least I am satisfied that it does.

I mentioned in my paper last May of having a strain of unswarming queens. I experimented a great deal last season with these queens and not one of them swarmed, and they stored more in boxes than any other strain I had, and I had three others.

These three strains did all the swarming. One strain in particular wanted to swarm all the time in spite of all I could do. I thought these must have been aware of the late Horace Greeley's advice to young men to emigrate West. But in this case it was the old lady that wished to emigrate.

Therefore, I think I can safely say that there is a great difference in strains of bees about swarming. Why should there not be as much difference in bees as there are in different families of hens? We know that there are certain strains of hens whose propensities for setting are much less than others. I think, therefore, if we breed our

queens properly this point can be attained.

I will tell you how I managed last season. I do not mention it with any idea of boasting, as it was wholly an accident with me. I was working for something else, when I noticed, later in the season, that my work paid me two-fold. I was not working to prevent swarming. Really if any one had asked me at the time if I was trying to prevent swarming, I should have told them I was not,—that it would induce them to swarm early. Nor do I know that it *will* prevent swarming every time, but I think with good queens it will be a great help.

My object in writing this is to have others try it another season and report the result. It is this. In the spring as soon as it is settled weather and the colonies will bear it, say the last half of May, when young bees are hatching fast and the queens are laying abundantly, go to every hive and examine the condition of each, and all that are in condition to admit of it, spread the brood—that is, separate the combs from the center of the brood nest and insert an empty comb in the space made vacant by the separation of the brood. Great care should be taken in this work not to overdo it, as a little too much spreading of the brood, especially in cold weather, would be very injurious. If they have no honey near the brood-nest a comb containing honey and pollen should be placed near them so that they will not be obliged to travel over cold combs in order to reach their stores. This should be done as often as the condition of the colony and the weather will permit. The reason for so doing is two-fold. First by so doing the queen is not obliged to go outside of the cluster to find empty comb to deposit her eggs in. In this way we can help our bees a great deal, and they will increase much faster than they would if we left them alone entirely. This should be repeated as often as once or twice a week if the weather is warm and pollen is coming in abundantly. Second, by managing in this way we will have very strong swarms early, which is very essential to secure a large crop of honey.

Now why should this mode of management prevent swarming? I reason thus: By having every comb in the hive filled with brood early,—before the honey season commences, as well as before the bees have the swarming fever, as it is called. There will be hundreds of young bees hatching daily, consequently there will be hundreds of cells vacated daily. Therefore making room for the queen to deposit eggs, and keeping her busy all the time they will have no occasion for swarming. You will perhaps say that the hive will soon become so crowded by this abundant hatching that the bees will be obliged to swarm for want of room. This would be the case, perhaps, with the careless bee-keeper. But if on the other hand he has been on the alert, up and doing, with a thorough knowledge of the inside of his hives and the requirements thereof, he will have had his boxes on before this, thus making room for the surplus bees and leaving the brood nest with no more bees than is required there. This should be done before they get the swarming fever (that is box-room should be given

them), because after they once get the swarming fever no amount of room would prevent their swarming.

Now in case the combs should become too full of brood, or if the brood should not hatch fast enough to give the queens sufficient room, a card of eggs and larvæ, can be taken out and used in other hives that need it and an empty comb put in place of it, thus giving the queen more room. I say a card of eggs and larvæ, not a card of hatching brood, as it has been customary with me, and, as I know, with many others, because by leaving the hatching brood they are continually making room for the queen to lay in. None of my colonies, that were managed in this way last year, swarmed or offered to swarm.

In conclusion, therefore, I will say, rear your queens from the best strains and give them room in proportion to their productiveness. By so doing I think swarming can be prevented and a large crop of honey secured when the season favors.

A. E. MANUM.

North-Western Ohio Convention.

The Association met at Napoleon, O., April 4. A. Fahnestock, of Toledo, in the Chair. The Chair called for essays on the different subjects announced at the previous meeting.

Mr. Williams had prepared no essay—feared his views, if given in full, might subject him to much criticism, as most all bee-keepers have their own standard of the purity and method of rearing Italian queens, and thought that bee-keepers would generally meet with less disappointment if they would procure imported Italian queens of some responsible or well-known importer, and rear queens for their own use.

Mr. Clinton spoke on the subjects of introducing queens, uniting stocks, exchanging places of stocks, to strengthen the weaker ones, &c. To introduce a queen, he would spray the queenless colony as well as the queen to be introduced with highly scented, sweetened water, at or near sundown, and turn the queen loose among the bees. To unite a queenless colony with one having a queen, he would place the colony having the queen in the lower story of a hive, and the one to be united in the upper story and placed directly over the other, at or after sundown, as bees never fight at that time of day; all will unite peaceably by the next morning. Had shifted weak colonies into places occupied by strong colonies, thereby strengthening the weaker colonies, but did not think it safe, except during a good flow of honey.

A short essay on honey plants was read by Mr. Kepler, in which the writer claimed that some plants secreted honey of such inferior quality that bees will not winter on it, and advised bee-keepers to reject such honey for wintering purposes.

Mr. Rasey said he did not believe God created bees with instincts that would cause them to gather unwholesome honey.

Mr. Williams.—It is well known that bees gather cider from half-rotten, bruised and fermenting apples, in seasons of scar-

city, and that bees never winter well when allowed to go into winter quarters with such stores.

A. Fahnestock read address on marketing honey which will be sent for next Journal.

Moved that a committee be appointed to examine and prepare a report on apiarian implements, which was carried. The Chair appointed Capt. Williams, R. Rakestraw and D. Kepler a committee.

While the committee were examining and preparing their report, a communication was read from D. Fink, Esq., of Arcade farms, commendatory of bee-culture as an elevating and important pursuit.

The report of the committee on apiarian implements was read by Mr. Williams, as follows:

Your committee, after carefully examining the implements of the apary on exhibition, beg leave to report as follows:

1. We believe the machine invented by W. D. Parker, of DeLancey, O., for cutting and dovetailing, and setting up Sectional Honey Boxes, to be a valuable aid to the bee-keeper, making a box equal, if not superior to any other, and greatly cheapening their manufacture.

2. That the honey extractor, made by Mr. Everett, of Toledo, to be equal, if not superior to any machine now before the bee-keeping public, and sold at little more than half the price of any other good machine.

3. Root's Shipping Crate is worthy of adoption, and his wood and metal cornered frames, as well as his Shipping Cages, are most useful of their kinds.

W. F. WILLIAMS,
K. RAKESTRAW, } Com.
DAVID KEPLER.

Moved by Mr. Williams that a vote of thanks be accorded Mr. Fahnestock for furnishing the Society, at his own expense, the many apiarian implements exhibited by him. Carried.

The Association proceeded to elect its officers for the ensuing year. On motion, the rules were suspended, and the following were elected by acclamation:

President.—W. F. Williams.
Vice President.—A. Fahnestock.
Treasurer.—T. B. Hayes.
Secretary.—Daniel Kepler.
Cor. Secretary.—S. L. Curtis.

Moved by Mr. Williams that the Secretary and the Corresponding Secretary be instructed to make out a synoptical report, especially concerning the new machine for making section boxes and the new extractor on exhibition, and forward the same for publication. The organization then adjourned to meet at Liberty Center on the 2nd Thursday in July.

S. L. CURTIS, Sec'y.

Bremer County (Iowa) Convention.

At a bee-keepers' meeting held at Waverly, Saturday, March 16, Thomas Lashbrook in the chair—after some discussion upon the subject of continuing the organization, it was unanimously decided in the affirmative.

Accordingly the following officers were elected for the ensuing year; Chas. McCormack, Chairman; Thos. Lashbrook, Vice Chairman; David Clark, Sec'y; and D. H. Bush, Treasurer.

Charles McCormack, Thomas Lashbrook and David Clark, were appointed a committee to draft a constitution and by-laws, to be submitted at the next meeting, to be held the last Saturday in May.



It was decided to have three regular annual meetings as follows: Last Saturday in Feb., last Saturday in May, and last Saturday in October.

Mr. McCormack gave some useful hints upon the subject of bee-hives, stating that he used the "Gallop Hive," which he thinks possesses some advantages over others. That by the use of this hive in what he called an extensive form, weak swarms could be thrown together and save them. The past few years have demonstrated the fact that "Bee-keeping" can be made profitable in this part of Iowa.

Meeting adjourned to last Saturday in May, to which meeting are all interested in this subject are cordially invited to be present.

Michigan Convention.

The semi-annual meeting of the Michigan Bee-keepers' Association convened at East Saginaw, April 10.

President A. B. Cheney, of Sparta Center, called the meeting to order, and read a letter from the Secretary, W. L. Porter, sending in his resignation, on account of ill health. Prof. Cook nominated Hon. Conrad Fey, of East Saginaw, who was unanimously elected to fill the vacancy. Prof. A. J. Cook, Dr. L. C. Whiting and T. F. Bingham were appointed a committee of arrangements. While the committee was out Secretary Fey introduced Mayor Thomson, who briefly addressed and welcomed the Association to the Valley.

BURYING BEES IN WINTER.

Prof. Cook said that at the Agricultural College some colonies of bees had been destroyed by mice, and he would advise means to prevent mice from getting at the hives. He recommended protecting the openings with perforated tin; said he thought well of burying bees, leaving an opening at the top filled with straw for ventilation. They should be buried in sand with good draining. It is not an expensive way of protection. He had tried it several seasons, and found that they consumed less honey than those that were not protected.

T. F. Bingham said the main thing was the depth at which they were buried, and thought they should be placed entirely under the ground, so the temperature should be as uniform as possible during the whole winter.

Mr. Fey said he had kept bees since he was a boy, and in only one or two instances had he been troubled with mice, and he thought the weather had much to do with wintering. Some seasons they would do better buried, and some they would do better above ground. He had built a bee house. One winter he lost some 90 colonies in his house, but he thought the cause was damp, wet weather. He thought ventilation had more to do with keeping bees than most people supposed.

Mr. Hetherington said he had no trouble with mice; thought it was impracticable to bury bees here in the Valley—the ground being so level. He packed with straw, and

had good success, losing very few. Sometimes he had covered with snow when it was deep; had some colonies dwindle that were kept in the cellar, and usually did not do well when housed in cellars or bee houses.

Dr. Whiting said that if bees were kept dry and had good food, they would take care of themselves, whether it was warm or cold, and give examples where they had wintered well when they were blocked up 1 or 2 inches above the board, and especially in cold weather; also in houses and in cellars, and packed in straw, and the first had wintered the best of all.

T. F. Bingham said he built a house with lumber, filled with hay, well packed; also packed under and over the hives with the same material, having space for his bees to come out, and had been very successful with his bees the past winter, but the weather had been so warm that he did not consider it a fair test.

J. P. Allison said his bees were in an open shed, about 20 inches from the ground, and he spread some hay in front of them on the snow. When the bees came out, on warm days, they fell on the hay, and would get up and go back. He gave them plenty of air. He lost 16 colonies the winter after the fires of 1871, but thought it was on account of the fires in the fall and not the cold weather.

Mr. Walter had buried in snow and lost most of them when only partially buried, but when wholly buried they had wintered safely.

Peter Leasia, of Bridgeport, said he had lost several colonies when there was plenty of honey left, and could see no reason, except it was for want of place to breed; thought they wanted plenty of air, and if well ventilated would winter well in all ordinary seasons.

President Chapin said he had built a house with double walls, filled with sawdust, and had lost from 10 to 25 per cent., but could not say it was the house, as there was a cider mill close by, and it might be the effects of that. Had tried open air one winter and lost all he had; was now trying the cellar, and thought well of it, so far; but could not tell how long it would be successful. He thought to winter bees successfully, first, we should have a perfectly dry place; and, second, he thought if ventilation was given, there would be no trouble.

Prof. Cook said that sometimes bees may gather too much honey in the fall and not leave room for brood, as he had reason to know, especially when the season was propitious.

The President then appointed the following committee on bee apparatus: Prof. A. J. Cook, O. J. Hetherington and Byron Walker.

HOW SHALL WE INCREASE OUR COLONIES?

Dr. Whiting.—The process I have adopted is to get queens fertilized and laying, then transfer combs from old hives to an empty one and fill up with brood, bees and queen, and change their location, thus preventing swarming, and thus keep on increasing.

Mr. Walker agreed with the Doctor.

Prof. Cook does not believe in following

the old style, but follows his own way, and to prevent swarming, clips the wings of the queen; then, if the swarm issues, catch the queen, put a new hive in the place of the old one, and when the swarm returns they will enter the hive. Then put the queen in and they are all right.

President Cheney was of the opinion that to increase stocks, the cheapest way would be to purchase colonies in common box hives and transfer them into the movable comb hives. This would be cheaper than to raise queens.

Mr. Bingham has a novel way of increasing. When the bees have filled the hive, place an empty set of combs above. Being all prepared for eggs, the queen then enters the above, and will be laying her eggs in a short time, and swarms his bees about 3 days before a heavy run of honey occurs.—After this, when all the combs are full of brood and honey, take off the top and move to some new place, and thus make two swarms; keeping on increasing, following the same rule with all others.

ADVANTAGES OF COMB FOUNDATION.

Mr. Bingham read an article from the BEE JOURNAL of May, 1876, wherein he opposed strongly the comb foundation, claiming that the natural comb gives the honey a good flavor, which comb foundation will not.

Dr. Whiting favored the use of comb foundation for brood combs, but not for surplus honey.

President Cheney favored the use of comb foundation for brood combs.

Mr. Hetherington favored comb foundation, claiming that bees would get a better start, and the queen would lay eggs sooner, but does not favor its use for surplus honey.

Prof. Cook offers the following, which was adopted:

Resolved, That while we recognize the great value of comb foundation for the use in the brood chamber and strongly recommend such use, we as stoutly disclaim against its use in boxes or sections.

The committee appointed on statistics for honey production for the year 1878 reported as follows:

Your committee appointed to recommend some plan for obtaining statistics relating to the production of honey in the State of Michigan during the present year, would respectfully recommend that there be a committee appointed, who shall, during the present session, prepare a circular letter, containing a succinct statement of the object desired, and also such questions as will elicit the desired information; that the secretary be requested to transmit a copy of this circular letter to every bee-keeper in the State, whose address he can secure, and request that the answers be filled and returned to him; that this should be done soon after the honey harvest, the returns to be properly abstracted by the Secretary and submitted to the Association at the next annual meeting. The committee on circular were the President and Secretary.

The above was received and adopted.

THE EXTRACTOR.

Mr. Bingham said the extractor was for separating the honey from the comb, that the latter might be used again, saving the bees much hard labor, also leaving the honey much nicer for market than the old way of straining honey.

Mr. Whiting only used the extractor to make room for brood.

Prof. Cook preferred the extractor to be all metal, and as light as possible, on ac-

count of cleanliness; would extract all the season if he could get 12½ cts. per lb., rather than produce comb honey. He would not leave too much honey in the fall for the use of the bees during the winter, but would rather sell it; would extract before the bees evaporate it; it is just as healthy as when thick, as he had had ample chance to test it at the College with the students.

O. J. Hetherington agreed with Prof. Cook; would rather use wire, half an inch apart than wire cloth; had no trouble with regard to injuring the young brood.

Dr. Whiting used an extractor with space for 4 combs; could extract 4 combs as fast as 2; liked large cans with large space under the cylinder.

Prof. Cook had observed the effect on the young larvæ, and had seen no injurious effects with the extractor, if properly used.

Prof. Chapin said he had used several kinds of extractors; liked large space under the cylinder; liked Mr. Everett's on this account; took some exception to Prof. Cook's remarks about thin or ripened honey. Would rather have bees finish their work, and then would extract and sell all, if 12½ cts. per pound could be obtained. We should try and create a demand for this product, especially for health, if nothing else.

Mr. Bingham said the extractor is the most useful thing in the apiary; without regard to price, thought it indispensable.

Prof. Cook would not sell thin honey, but would extract it while thin and put in a dry, warm room to evaporate and properly ripen.

Mr. Walker agreed with the President in regard to thin honey; thought there was danger in putting poor honey on the market, and there was very little difference in the cost.

Mr. Bingham gave Mr. Langstroth's experience, which agreed with Prof. Cook.

SHALL WE PROCURE ITALIANS?

Dr. Whiting said he used this breed on account of ease in handling; thought the blacks would give more honey, but were not so easy to handle.

Mr. Hetherington thought more honey could be obtained from other breeds.

Mr. Walker said they would not go into boxes readily, unless some means were used to compel them to do so.

Prof. Cook favored the breed very much; thought with good care, favorable results could be obtained, and if much pains were taken in this way, better results would be obtained.

SHALL WE USE BOXES OR SECTIONS?

Prof. Cook would use sections as giving better results, both as to honey and market.

J. P. Allison would use small boxes or packages, either boxes or sections, as they would sell better than large packages.

Mr. Wellington agreed with the above; we should be governed by the market.

Mr. Whiting liked sections best, on account of sale; merchants would buy them because they were not worth so much, and would sell readily.

Mr. Walker liked boxes best, as he



thought he could get more honey in them.

President Cheney preferred small packages for market; favored mostly 1 pound sections, but thought some larger ones might be advisable; thought as much honey could be obtained as by the old way; would not give too much room; good results can be obtained in this way.

HOME CONSUMPTION OF OUR HONEY.

Mr. Allison said one of his neighbors was in favor of this, as he consumed all his honey.

Mr. Rouse said he would be in favor of home consumption and a uniform price agreed upon, among producers.

Mr. Walker found universal prejudice against extracted honey; we should encourage the market in every way we can.

Mr. Bingham could sell all of his honey at home, but he sold at the rate of 11 lbs. for \$1, and at these rates he had no trouble to sell what he produced; and if we would make it an inducement to people to buy in quantities, there would be no trouble. We should educate the tastes of the people, and they would not buy so much cheap syrup.

Mr. Whiting said he had sold extracted honey to the poor, in place of syrups, to a considerable extent, and he expected the demand would increase each year.

Prof. Cook said that extracted honey was preferred by the students at the college, which he considered a good test; also the same at the groceries in the village of Lansing, but he put it up in small packages. It should be put up in small, neat packages, and it will sell readily, after people have tried it once and found what the quality is.

Mr. Hetherington offered the following, which was carried unanimously:

WHEREAS, We recognize any real invention and improvement in implements and methods of management of the apary, as a source of all our real advancement in apiculture. Therefore, we, the bee-keepers of Michigan, recognizing the mutual and wide-spread benefit derived from inventions and improvements, recommend that he who shall place within our reach any improvement or real invention shall receive our hearty co-operation, and the undivided recognition and honor due for such service.—Therefore

Resolved, That we observe with heartfelt sorrow the course pursued by parties, who, in their efforts to control the manufacture and sale of the inventions of others, without their consent, or the recognition of their rights, discourage invention, and worthy and valuable zeal in the production of improvements and methods alike valuable to us all.

Resolved, That while we heartily extend the hand of fellowship and every consideration of honor to the inventor of any valuable method or improvement, we do most emphatically condemn, as detrimental to our mutual interests as bee-keepers, the production of implements embodying the inventions of others, except with due credit, and the production of a superior article or implement; that we do not regard the mere production of an article—the successful workings of which are due entirely to another invention—as an improvement, but merely as an evasion, unless such change shall, of itself, render more practical and convenient the original inventor's machine.

Prof. Cook said that we, as an association, should sustain all worthy inventions.—It costs as much to sell an invention, generally, as it does to manufacture it, unless it should be so worthy as to be indispensable to those using the invention.

Dr. Whiting favored the above heartily.

President Cheney favored it, but thought we should be cautious in trying many new inventions.

The afternoon session was opened by the President, as Chairman of the Committee on Statistics for 1878, reading a circular letter, to be addressed to bee-keepers to fill out and return to the Secretary, asking a series of questions in regard to matters pertaining to the subject.

WHAT KIND OF HIVE SHALL WE USE AND WHAT FRAME?

President Cheney said it did not make much difference what kind of hive or frame we had, provided we used only one kind; the same amount of honey could be produced. Each kind should have a style of management peculiar to itself, and should be a special study.

Mr. Fey said he had used several kinds.—In box hives you could not detect the loss of the queen as soon as in others. For wintering, he thought it the best.

The Committee on Apparatus made the following report, which was received and adopted:

MR. PRESIDENT:—Your committee feel somewhat embarrassed in reporting upon the large and interesting assortment of apparatus on exhibition, as our duty to bee-keepers requires that we shall speak disapprovingly of some of the implements submitted for inspection. We first examined smokers, of which there were 3 on exhibition, the Bingham, the Quinby and the A. I. Root. We give our unqualified recommendation to the Bingham smoker. Two of the committee who have used all of the 3 smokers think that in view of the superiority, the additional price is no objection to this smoker.

The Bingham hive is remarkable for its shallow frames, great simplicity and adaptability to the securing of comb honey. We should not expect that the hive would be salable, and should fear, from the shallow brood-chamber, that the queen might give trouble by entering the sections.

The Quinby improved hive is also very simple, quickly manipulated, and for the large space for surplus comb is very commendable.

The similar Russell hive is in every way inferior to the Quinby.

The Concord hive is a malformed Langstroth, which, from its complexity and waste room, is not to be commended.

The Langstroth hive, exhibited by Dr. Whiting, is essentially a Langstroth hive, and so needs no commendation.

The hive exhibited by John Coates is the same in form and principle as the hive disseminated a few years ago by Dr. Conklin, and has been generally discarded by all who tried it.

The only extractor on exhibition is one from Mr. B. O. Everett, of Toledo, Ohio. This is the Root machine improved. Your committee think they have seen no better. They are specially pleased with the deep can, the attached baskets for pieces of comb, and the unprecedented cheap price of \$7.00.

There are several fine honey section crates on exhibition; one very fine one from O. J. Hetherington, one excellent one from Dr. Whiting, also one on the Concord hive.

There are 2 fine shipping crates; one from H. M. Bradley, of Bay City; the other from Cyula Linswick, of Farwell.

The sections are almost innumerable. Sections very neatly dovetailed and in the Langstroth frame, from Messrs. Sayles, of Hartford, Wisconsin; others of same style from G. B. Lewis, Watertown, Wisconsin; from Willis D. Parker, Defiance, Ohio; A. I. Root, of Medina, Ohio, and E. J. Scofield, of Nashua, Iowa. Nailed sections—very neat—are exhibited by Mr. Bradley, and from Mr. Alley, of Massachusetts. Mr. Hetherington exhibits his neat section, put together with glue and grooves. From the Agricultural College are sections, veneer sections, foundations, blocks, one for fastening foundation, and one for making true frames, and one Gallup frame, prepared to receive foundation.

A. J. COOK,
O. J. HETHERINGTON,
BYRON WALKER.

Prof. Cook made a motion that the next meeting be at Grand Rapids, on the 4th and 5th of December, 1878. Carried.

We have gotten up a "Constitution and By-Laws," suitable for local Associations, which we can supply, with the name and location of any society printed, at \$2 per hundred copies, postpaid. If less than 100 are ordered, they will have a blank left for writing in the name of the Association, etc. Sample copy will be sent for a three-cent postage stamp.

WILL M. KELLOGG, *Sec'y*,
Oneida, Knox Co., Ill., and Oquawka, Ill.



"HOT HONEY."—Friend R. Corbett remarks that his cure for "hot honey" is as follows: "Boil it, taking off the scum, and put it into a bright pan or kettle. This will not change its color, but will render it palatable and it will not disagree with the most delicate stomach."

✂ A "Chip from Sweet Home," not of the usual kind—i. e. a letter—made its debut at friend Palmer's on the 19th. It was welcome, however, and did not distract his attention from his 196 colonies of bees, which he reports in good condition, and ready for the bountiful harvest now so promising.

✂ Our pamphlet on "Honey as Food and Medicine" was issued about the 10th of April. It received a hearty welcome, and orders for it has been coming in quite freely. We append a few much abbreviated indorsements of it—as samples of the many—our space forbidding the insertion of all:

"Excellent; well gotten up."—W. P. Henderson, Murfreesborough, Tenn.

"It is truly excellent; I shall try to get up a club of the bee-keepers of this vicinity to send for a quantity for distribution."—Frances A. Dunham, DePere, Wis.

"Pamphlet on Honey received—most valuable to large Honey producers; you ought to dispose of many thousands of them."—J. M. Shuck, Des Moines, Iowa.

"Your pamphlet on Honey is a step in the right direction."—H. F. Walton, Woodman, Ill.

"Honey pamphlet is received; send me 250 of them; I would like to have it printed in German; I shall want more of them soon."—F. Claussen, Mishicot, Wis.

✂ A beginner asks, "If I buy a North Star Hive, which is a patent, I believe, have I a right to use it, and if I sell bees in it, has the purchaser a right to use it?"—Certainly; Sperry & Chandler say that they reserve only the right to make them. Any one who has purchased of them can use it, and if they dispose of it, the buyer has exactly the same right to use and sell, &c.

✂ Friend Bingham has contracted for a "Corner" in our Business Department. In this he intends to put Gleanings on the Smoker question, from time to time. He says he has piles of interesting letters that should be printed—hence, he has purchased a "Corner" in the AMERICAN BEE JOURNAL for their insertion.

✂ We keep Prize Boxes and Crates in stock at this office, and can supply orders, without delay, lower than the lumber for a small quantity can be bought for, in the country. See prices on last page of cover.

Honey Markets.

NEW YORK.—We quote as follows:

There is no change in the condition of the market during the past month, and prices are still quotable as follows:

Buckwheat Honey—comb.....	8 to 12c
Strained or extracted.....	8 to 10c
Clover—in comb.....	15 to 25c
" extra.....	8 to 12c

H. K. & F. B. THURBER & Co.

CHICAGO.—We quote as follows:

HONEY.—The current quotations for good to choice comb, are ranging at 11 to 12c. $\frac{3}{4}$ lb; common and dark colored lots at 8 to 10c, and choice extracted honey at 8 to 10c.

BEESWAX.—In fair request at 24 to 26c. per lb. for prime choice yellow.

CINCINNATI.—Quotations by C. F. Muth. Comb honey, in small boxes, 15@20c. Extracted, 1 lb. jars, in shipping order, per doz., \$2.50; per gross, \$28.00. 2 lb. jars, per doz., \$4.50; per gross, \$50.00.

LOUISVILLE.—Quotations by B. B. Barnum.—I will pay for choice, light, extracted honey 8@10c.; for white comb 12 $\frac{1}{2}$ @15c., in small boxes.

CALIFORNIA.—Everything looks well for the coming crop of honey to be large and of fine quality. It will be a little late; that in San Diego Co. will come about June 1st. Stock here is mostly from the crop of 1876. Holders of all kinds want to unload.

We quote: Comb, white, 12 $\frac{1}{2}$ c. @ 15c. Dark to medium, 10c. @ 12c. Extracted, dark, 6c. and 9c. Choice, best, 10c. and 12c. Beeswax, 23c. and 31c.

STEARNS & SMITH, 423 Front St., San Francisco, Cal.

✂ Several offers of interests in Patent Rights and inventions of bee-appliances, have been offered to us, very kindly, of late, but we have declined them because we think THE JOURNAL should be independent, and not be in any way interested in such matters. Of course we thank our friends for their kind offers—but we shall steadily decline all such, and make this notice to all, that we have fully determined not to accept any such, under any circumstances; so none should feel hard at our refusal. The JOURNAL must continue to be subservient to no party, clique or patent interest, as long as we have control of it. It is to the interest of all that it should be so.

✂ In reference to the "Concord Hive" that was exhibited at the Michigan Convention—the manufacturers, Kraetzer Brothers & Stauber, desire to say, that it was one of the first that they made. One of Mr. Stauber's workmen was ordered to ship a hive, and by mistake he got down an old one from the loft and shipped it, instead of one of their new style.

CATNIP SEED should be sown very thick, in March, on good garden soil. Plants blossom the first season, but it requires two years to give them full bloom. In the fall, cover the plants slightly with rubbish, to prevent the frost from throwing them out of the ground. In the spring, set the plants out 3 $\frac{1}{2}$ ft. apart each way, and cultivate like corn. Two years ago, in many localities, all sources of honey failed but Catnip. Those who wish to sow this honey-producing seed should procure and sow it at once. We can supply a few pounds at \$2 per lb.

Bingham's Smoker Corner

Will contain a short card from some one every month. See Bellows Smoker card on another page.
T. F. BINGHAM.

Bayou Goula, La., April 6, 1878.

T. F. BINGHAM, Esq., Abromia, Mich.:—Dear Sir.—As for your smokers, they are far superior to any ever invented; and we bee-keepers owe you a vote of thanks for the ingenious invention. Many may try to improve on yours, but I am positive none will make a better one. Bees are gathering well, and I think the season will be a good one. Yours respectfully,

PAUL L. VIALON.

Adams Station, N. Y., April 15, 1878.

T. F. BINGHAM, Dear Sir:—The Smoker received this morning; please accept thanks for being so prompt. I did not expect it until the 17th inst. It truly proves a delight and a comfort, and I feel incompetent to thank you enough for it. You surely have great reason to be proud of it. I have used the Quinby, but it was forever going out and tumbling over, and I preferred a mouth smoker. Yours never goes out, (as far as my experience goes), and I have been using it all the morning, it goes whether on end or on side, whether it has sound or rotten wood, equally well. Please accept my thanks and good wishes, and if I am ever in Michigan I will come to Abromia and thank you personally. As to the remarks I made about the smoker question, I should have looked into the matter more carefully before writing what I did. As I now have your bellows on one side, and Novice's description of his smoker on the other, I can easily see that he uses your bellows to a "T." His form is the most original, but I can now see the reason why he put that cup on the top of your pattern—direct draft arrangement. I have always thought that King's smoker was as near like the Bingham as he could well make it, and think it wrong in him to call it "Our new Bellows Smoker." I am glad to hear that he owns it. Your smoker is a great deal better than the Quinby, as it does not go out. As M. Quinby and L. C. Root refused to take any percentage from others, you are doubtless right in selling yours. Please forgive my remarks if they were offensive. I see now where I was wrong. Now, I will close, begging your pardon and trusting that God will bless you, and if it is His will, may your smoker business prove a fruitful field. I remain your friend,

THEO. H. VANALLEN.

The Improved New Bellows Smoker is superior to the Quinby in the following particulars: First.—The barrel being more than twice as large as the Quinby, it will burn all kinds of material. Second.—It is ventilated so that it never goes out of itself. Third.—Its shape and construction are such that it will last fully twice as long and will not get out of order.—*Bee-Keepers' Magazine*.

How to WINTER.—Those who wish to post up on the subject of wintering, will do well to read Prof. Cook's essay as read before the National Convention of 1876.—Price 15 cents.

Central Kentucky Blue Grass Bee-Keepers' Association.

The first semi-annual meeting of this Association will meet at Lexington, Ky., on Tuesday, the 7th of May, at 10 a.m., when subjects of importance will be freely discussed. The Essay of Dr. S. E. Mitchell, "Bee-keeping Healthful and Profitable for Ladies," will no doubt bring out a large delegation of the fair sex. Prof. James K. Patterson, H. C. Herspurger, John W. Bean, A. D. Brown and others, will read Essays or otherwise address the Convention. The proper mode of marketing honey, will receive special attention. The Williamson Bros have promised to have a large exhibition of apianian implements and supplies on hand for inspection, and altogether, the Convention promises to be of unusual interest; we hope every bee-keeper in this part of Kentucky will attend. JAMES K. PATTERSON, Pres't.
WM. WILLIAMSON, Sec.

The Southern Kentucky Bee-Keepers' Convention will meet at Glasgow Junction, Barren Co., Ky., on the 7th day of May next. All bee-keepers are invited. N. P. ALLEN, President.
H. W. SANDERS, Secretary.

The Jefferson County Bee Keepers' Association will meet at the Court House, in Madison, Indiana, May 22d, at 10 o'clock A. M. All bee keepers, and those interested in the business, are invited to participate. ALLEN W. SMITH, Sec'y,
Box 119, Madison, Ind.

DIED, March 12, 1878. C. Hancock, of Albion, Mich., aged 72 years. He was a great lover of bees and had 40 colonies at the time of his decease.

We supply THE AMERICAN BEE JOURNAL and any of the following periodicals at the prices quoted in the last column of figures. The first column gives the regular price of both:

Gleanings in Bee Culture.....	\$3 00	\$2 50
Bee-Keepers' Magazine.....	3 50	2 75
The three Bee papers of United States.	4 50	3 50
British Bee Journal.....	5 00	4 00
All four—British and American.....	7 00	5 50

BEE HIVING APPARATUS.

If you wish to have Swarming under your control, and lose none of your swarms, send for my circular (second edition for 1878). The queen need not be clipped. The bees will ring your door bell when they swarm. Territory and farm rights very low.

Address, R. B. OLDT,
5-7 New Berlin, Union Co., Penn.

ITALIAN QUEENS,

Full Colonies and Nuclei,

FOR SALE. All queens bred from Imported mothers. Address, M. G. GRIGSBY,
Lynnville, Giles Co., Tenn.

Tin Points For Glassing Boxes.



Put up in lots of 1,000, and sent by mail, post-paid, for..... 50
From 5,000 to 10,000, by express, per 1,000..... 30

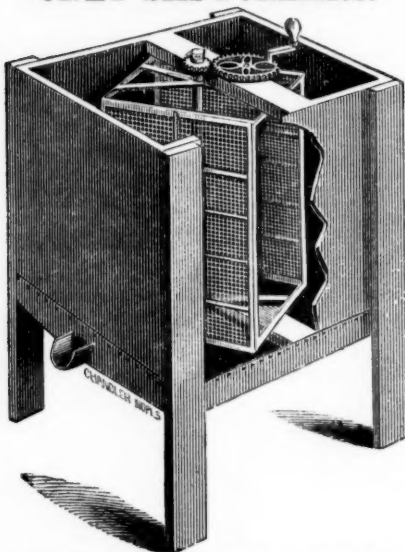
THOMAS G. NEWMAN & SON,
974 West Madison St., CHICAGO.

100 COLONIES ITALIAN BEES.

In order to pay for a little home, we offer the above stock at greatly reduced prices, at Columbia Apiary. Address D. STAPLES & SON,
Tenn.

Breeders of and dealers in pure Italian Bees, Queens and Honey, also high-class Poultry, Rabbits and Pigeons. Send for circular. Jan 6m

ONLY SIX DOLLARS.



We present you with a cut of our HONEY EXTRACTOR. It will carry any sized frame or comb. This machine is equal to the very best, and has no superior. We have put the price down so low that anyone can afford to buy one. We sell them at the low price of \$6.00 each. Address,

G. P. MCDONALD, 13 West North Street, Indianapolis, Ind.

5-6

ITALIAN QUEENS

Bred from Imported or home-bred mothers at \$1.00 each or \$11.00 per dozen—Ready to ship by May 15th. Purity, safe arrival and safe introduction (by my Improved Plan) guaranteed.

J. E. KEARNS, Waterloo, Juniata Co., Pa.

Prices reduced on material for

GLASS HONEY BOXES.

Honey in them shows to best advantage, and brings highest market prices.

C. R. ISHAM, Peoria, Wyoming Co., N. Y.

4-5

60 STANDS OF ITALIAN BEES

Empty hives and a complete apiarian's outfit for sale—the owner being dead they must be sold regardless of value or price—for particulars, address

Mrs. R. C. STOKES, Avenue House, Atchison, Kansas.

5-6

Friends, if you are any way interested in

BEES OR HONEY

THE A B C OF BEE CULTURE,

Just published, will tell you all about the latest improvements in securing and Marketing Honey, the new 1 lb. Section Honey Boxes. All about making Artificial Honey Comb, Candy for Bees, Bee-hunting, Artificial Swarming, Bee Moth, &c. Nothing patented. Part first, fully illustrated with costly Engravings, mailed for 25c.

A. I. ROOT, Medina, Ohio.

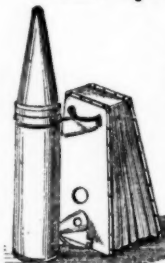
BEE-KEEPING OF TO-DAY.

Many Bee-Keepers through the country, of limited experience, say they have found "Bee-Keeping of To-Day" worth its weight in gold. It treats on all Apicultural subjects, makes a complete reference book, and, therefore, renders valuable assistance in time of need. Sent post-paid for 25c. Circular of Macon Apiary sent free on application. Address,

WALLER L. REED, Box 42, Macon, Mo.

5-10

NEW QUINBY SMOKER.



The original Quinby Smoker has recently been greatly improved and is now equal to any in the market in all respects. I am prepared to offer them at reduced rates.

For circular of general bee-keeping supplies. Address,

L. C. ROOT, Mohawk, Herkimer Co., N. Y.

5-11

Bee Hives.

LANGSTROTH

AND

MODEST,

Single or Double Story.

Oatman's No. 2 and 3 Honey Boxes, Section Frames,

ITALIAN QUEENS,

&c., at bottom rates.

See advertisement in the March number of the AMERICAN BEE JOURNAL.

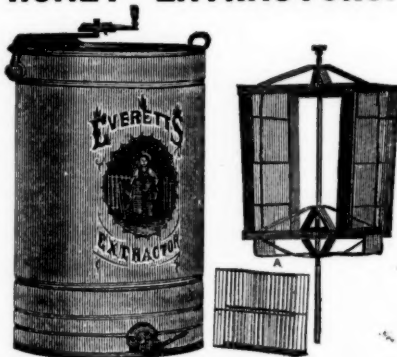
J. OATMAN & SONS,

5-11

Dundee, Kane Co., Ill.

EVERETT'S

HONEY EXTRACTORS.



They are all well-made of heavy milk-can tin, and are faithfully portrayed by the cut. They all have a wire basket (A) to hook on to the upper edge of the comb-rack for extracting small pieces of comb. Prices:

For 2 frames 12x20 inches, or less.....\$7.00
Do. with baskets of wire instead of wire cloth 7.50
For 4 Langstroth frames.....9.00
For 4 frames 12x20 inches, or less.....10.00

I also keep for sale Bingham's Smokers, tin separators and bee-hives. For Price List apply to

B. O. EVERETT, 107 Monroe St., Toledo, Ohio.